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IDENTIFIERS	*Beverly Hills Unified School District CA

ABSTRACT

This report is designed to provide the Beverly Hills Unified School District with an analysis of current utilization of microcomputers throughout the instructional program and to provide recommendations for practical changes to refine the district's microcomputer program. Data were collected through a variety of methods, including the administration of an attitudinal survey to a representative sample of board members, parents, students, and teachers; on-site visitations; interviews; and review of district documents. Survey procedures are described; a detailed analysis is presented for selected survey items; and findings and recommendations are presented for the areas of curriculum, training, articulation and coordination, software, hardware, staffing, policy and planning, and funding, both in summary form and in detail, for the elementary schools, the high schools, and the district. Classroom observation guidelines, the survey instruments, and extensive survey data for all groups with questionnaire items are appended. (KM)

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Table of Contents

I. Introduction

Page

Study Request..... 1
Design..... 1
Goals..... 1
County Study Team..... 2
District Steering Committee..... 3
Study Procedures..... 3
Study Report..... 4

II. Executive Summary

Glossary of Terms..... 4
Summary of Recommendations..... 4

III. Survey Analysis

Procedures..... 9
Analysis of Selected Survey Items..... 10

IV. Findings and Recommendations

Elementary..... 32
High School..... 38
District..... 43

V. Appendices

A. Classroom Observation Guidelines..... A-1

B. Survey Instruments

Elementary Students..... B-1
High School Students..... B-2
Teachers..... B-3
Parents..... B-5
Boards..... B-6

C. Survey Data for all groups and questions..... C-1

Introduction

Study Request

The study of the Beverly Hills Unified School District instructional utilization of microcomputers was initiated at the request of the Superintendent.

Design of the Study

The study of a district's utilization of technology for instructional purposes represents a new interaction between the Los Angeles County Office of Education and a school district. It is hoped this study will provide a model for the review of technology for all districts of Los Angeles County.

The study was designed as a joint effort between the County Office and the district's Board Members, Administrators and Teachers who are the major stakeholders in utilizing technology in the instructional program. The participants worked together to develop the study goals and objectives. The findings and recommendations were reviewed by the district participants and their feedback was solicited for the final document.

The goals and objectives of the study, as well as the methodologies followed, were documented by the Los Angeles County Office of Education in the form of a Study agreement and approved by the Superintendent of the district before the study began.

Following initial planning sessions with the Superintendent and the district Computer Coordinator, the study goals, objectives and time lines listed below were approved.

Goal of Study

To provide a review of the utilization of microcomputers throughout the instructional program.

Objectives

1. Review the district's use of computer technology in its instructional programs.
2. Complete an inventory of microcomputer hardware and software used in the district.
3. Collect and review written plans related to the use of computers in the school district.
4. Review staff training plans related to computer utilization.

5. Review processes for the integration of the microcomputer with existing curriculum and instructional programs.

6. Create, administer and analyze an attitudinal survey of a representative sample of board members, parents, students and teachers related to the use of computers in the district.

7. Visit Computer Education Classrooms.

8. Collect and review evaluation instruments used in Computer Education courses.

9. Randomly visit classrooms at each school to observe the use of computers in instructional programs.

Study Team

The study team consisted of the following personnel:

Mr. Joel P. Shawn, Team Leader
Microcomputer Services Consultant
Division of Curriculum and Instructional Strategies

Mr. William R. Dawson
Special Assignment Consultant
Division of Curriculum and Instructional Strategies

Dr. Donald L. Kester
Program Evaluation and Research Consultant
Division of Evaluation, Attendance and Pupil Services

Mr. Henry D. Mothner
Consultant
Teacher Education and Computer Center
Division of Curriculum and Instructional Strategies

Mr. Timothy I. Murphy
Secondary Education Consultant
Division of Curriculum and Instructional Programs

Ms. Nancy Wagner
Coordinator-in-Charge
Division of Regional Occupational Preparation

District Steering Committee

A district steering committee was formed to include administrators and teachers from all school sites and district office personnel. Steering committee members participated in four meetings for the purpose of planning, reviewing and providing feedback to the study. In addition, a subcommittee was formed to design and disseminate the survey. Members of the committee were as follows:

Mr. Mike Agnitch, District Computer Coordinator *
Mr. Larry Bigler, Teacher, Beverly Hills High School
Mr. Richard Canady, Principal, Hawthorne School
Mrs. Flo Cohen, Teacher, Hawthorne School *
Mrs. Sue Cowan, Teacher, El Rodeo School *
Mr. Craig Davis, Teacher, Hawthorne School *
Dr. Art Fields, Principal, Horace Mann School
Miss. Delores Fitchman, Principal, El Rodeo School
Mrs. Deborah Hofreiter, Teacher, Beverly Vista School *
Mrs. Carol Katzman, Director Elementary Services
Mrs. Nancy Kuechle, Teacher, Horace Mann School *
Mrs. Anita Naiman, Teacher, Beverly Vista School *
Ms. Janet Peale, Teacher, Horace Mann School
Mr. Joel Pressman, Teacher, Beverly Hills High School
Dr. Dave Reinstein, Principal, Beverly Vista School
Mrs. Jeri Ruben, Teacher, El Rodeo School *
Mr. Stu Silver, Vice Principal, Beverly Hills High School
Mr. Larry Stees, Teacher, Beverly Hills High School
Mr. Dick Ubick, Assistant Principal, Hawthorne School
Mrs. Carol Yacht, Teacher, Beverly Hills High School
Dr. Barbara Zussman, Teacher, Beverly Hills High School *

*** Served on survey subcommittee**

Study Procedure

An orientation meeting was held for the steering committee on January 8, 1986 at which time the goals and objectives of the study were explained and the study schedule and procedures were discussed. The survey subcommittee was formed at this time.

The on-site visitations and interviews took place during January and February 1986. The surveys were disseminated in early February and returned by the end of the month. Team members reviewed district documents and plans related to computer utilization.

Following completion of the on-site phase of the study, review of district documents and analysis of survey data, a preliminary draft of the major findings and recommendations was presented to the district Steering Committee and the Superintendent for review and comment. A study session was held with the Board of Education to review the survey data and the major findings of the study.

The final report was drafted and presented to the steering committee and Superintendent to determine feasibility of the recommendations and to discuss possible action plans for implementation.

Study Report

The purpose of this report is to provide the district with an analysis of current utilization of microcomputers throughout the instructional program. The report attempts to commend the many fine practices observed and to suggest practical changes to refine the district's microcomputer program.

Implementation of these recommendations is at the discretion of the Superintendent and the governing Board. The recommendations are not presented in prioritized order. It is suggested that the Superintendent develop a list of prioritized acceptable recommendations and determine action plans for their implementation.

Executive Summary

Glossary of Terms

The following terms are defined to provide clarity in the findings and recommendations:

Computer Resource Teachers:

Those teachers who as part of their assigned duties coordinate the activities of the computer labs.

Curriculum Based Computer Work and Curricular Use:

Work done with the computer not related to the study of computers. This refers to academic and non academic classes where the computer is used to augment instruction.

Computer Education Program:

The classes, labs and curriculum in place in the district which provide students with knowledge about computer applications, programming, etc..

Summary of Recommendations:

The recommendations listed below are not in order of priority. The page number(s) on which each recommendation is discussed is indicated immediately following the numbered recommendation.

RECOMMENDATIONS

CURRICULUM

(1) It is recommended that a system be established at each school to ensure continuity between computer lab work and classroom work. (Page 33)

(2 & 23) It is recommended that site microcomputer steering committees be established at each school to provide leadership and coordination of microcomputer plans (school and district). (Page 33 & 39)

(3 & 21) It is recommended that an accountability process which relates to student work with computers be established at each school. (Page 33 & 39)

(4) It is recommended that a keyboarding program be designed and implemented. (Page 33)

(22) It is recommended that the instructional use of software include higher order thinking skills. (Page 39)

(24) It is recommended that computer utilization be included in the work of the curriculum committees and articulated with the computer committee. (Page 39)

(25) It is recommended that the teaching of BASIC programming be reevaluated. (Page 40)

TRAINING

(5 & 27) It is recommended that a systematic training program be implemented for teachers to accomplish the site and district goals for the use of computers. An integral part of this plan should be to provide key training during non-student time. (Page 34 & 40)

(6 & 26) It is recommended that all teachers be given the opportunity to learn how to use a microcomputer in the management of their instructional programs (word processing, grade management, work sheet production, etc.) (Page 34 & 40)

(7) It is recommended that release time be provided. Teachers who have not received adequate inservice training can then gain confidence in the proper use of the equipment. (Page 34)

(8) It is recommended that comprehensive inservice be provided to teachers to bring them to a level of computer literacy and comfort that will allow them to work effectively with students. (Page 34)

(9) It is recommended that inservice workshops in evaluation and selection of instructional software and related materials be provided to teachers. (Page 35)

(28) It is recommended that teachers continue to be encouraged to take equipment home. (Page 40)

(29) It is recommended that all teachers be provided with up-to-date information about current grants which may be utilized to increase computer use. (Page 41)

ARTICULATION AND COORDINATION

(10 & 31) It is recommended that a process for providing continuity and articulation between 8th grade and 9th grade computer programs be established. (Page 35 & 41)

(11) It is recommended that a full-time computer instructor be assigned to the labs with school wide coordination responsibilities. (Page 35)

(12) It is recommended that site plans focus inservice training in the use of computers in the curriculum initially on those teachers who express interest and/or willingness. (Page 35)

(30) It is recommended that a clear process for the purchase of hardware and software be developed and communicated to all staff. (Page 41)

(32) It is recommended that the feasibility of relocating the curriculum computer lab adjacent to the computer science labs be studied. (Page 41)

(38) It is recommended that coordination of District computer programs be made a priority. (Page 44)

(42) It is recommended that a district wide process for the evaluation and acquisition of computer software be created. (Page 45)

(44) It is recommended that an instructional curriculum mapping process be implemented which in one document would list instructional objectives and available computer software, media, other instructional materials and instructional strategies appropriate to achieve desired learner outcomes. (Page 45)

(45) It is recommended that a K-12 continuum for Computer Education be developed and that articulation between the elementary and high school programs be accomplished. (Page 46)

SOFTWARE

(13 & 33) It is recommended that a formal process for the review, evaluation and purchase of microcomputer software which is consistent with the proposed district process be established at each site. (Page 35 & 42)

(14) It is recommended that a current list of microcomputer software in use at each site be published and made available throughout the District. (Page 36)

(15) It is recommended that additional software designed for the ESL program be purchased. (Page 36)

(16) It is recommended that additional software be purchased to eliminate the necessity of rotating software among elementary schools. (Page 36)

HARDWARE

(17) It is recommended that the district study the feasibility of adding telecommunications hardware and software to each site. (Page 36)

(18 & 36) It is recommended that large monitors on carts be made available to use with computers for classroom instruction. (Page 36 & 42)

(19) It is recommended that additional hardware be purchased to complete the goal of the District master plan to provide each K-5 classroom with a computer. (Page 37)

(20 & 34) It is recommended that printers be provided for computers placed in classrooms for curricular use. (Page 37 & 42)

(35) It is recommended that the district study the feasibility of adding telecommunications hardware and software to the high school computer labs. (Page 42).

(46) It is recommended that District-wide strategies for the maintenance of computer hardware be studied. (Page 46)

STAFFING

(37) It is recommended that a full-time District Computer Coordinator be provided. (Page 44)

(47) It is recommended that the District study the feasibility of providing the Computer Resource Teachers a non-student period during the teaching day to accomplish the goals of the district and site computer plans. (Page 46)

POLICY AND PLANNING

(39) It is recommended that the existing five-year plan be modified to include curricular, instructional and management use of computers. (Page 44)

(43) It is recommended that the District develop a policy which supports the concept that student work done on a computer is acceptable. (Page 45)

FUNDING

(40) It is recommended that future expenditure of funds focus on the following areas: software evaluation and acquisition, teacher training, and staffing coordination positions. (Page 44)

(41) It is recommended that funding be provided for the limited purchase of additional computers and printers for use in curricular areas. (Page 45)

Survey Analysis

Purpose

The purpose of the surveys was to develop a picture of the attitudes of the major stakeholders of the district in relation to the use of technology. The survey analysis is a measure of the effect which the program has had. The survey results have two functions: (1) to provide additional data in the formulation of the study recommendations and (2) to provide feedback to those surveyed. It is the hope of the study team that specific action recommendations may be generated by the district Computer Committee to address issues raised by the survey analysis.

Design

A subcommittee comprised of volunteers from the district Technology Steering Committee (see district Steering Committee above) and Dr. Don Kester (from the County Team) met several times in January and February to make decisions about sampling and to write four questionnaires: one for K-8 students, one for high school students, one for parents, and one for teachers. The subcommittee worked to create questions that would allow comparisons of attitudes and concerns between the groups. The subcommittee decided not to include administrative staff in the survey.

The board survey was created by the Technology Assistance Team, Team Leader with input from team members and the Superintendent.

Sampling Procedures

Elementary:

Questionnaires were given to students in grades 1, 3, 5 and 7. Classes were selected from alphabetical listings of last names of classroom teachers at each of the four grade levels. Students of these selected classes were asked to take home a similar survey for their parents. All elementary teachers at each of the four schools were asked to complete the survey.

High School:

Questionnaires were given to students in two English classes at each grade level, 9, 10, 11 and 12. Again, classes were selected from the alphabetical listing of classroom teachers' last names. These same students were asked to take home a similar survey for their parents. All High School teachers were asked to complete the survey after a faculty meeting.

At all five schools questionnaires were distributed to the four target groups during the second week of February.

Data Analysis

Data analysis and reports were conducted by Dr. Don Kester, Mr. Joel Shawn and Mr. Steve Yamarone of the Los Angeles County Office of Education.

Two levels of detail are provided. One level is very detailed. It shows the by-school and by-grade level results (please see Appendix C.) The other level provides a summary on each of the five group responses to selected questionnaire topics.

Analysis of Selected Survey Items

The following list indicates the major survey topic areas showing the page number where the analysis of the data for that topic may be found.

Value of School Computer Labs (Page 11)

Effectiveness of Computer in Improving Student Performance (Page 12)

Value and Support of Computer Use in Schools (Page 13)

Relevance of the Computer Program to the Student's Future (Page 14)

Value of Having a Computer Resource Teacher at Each Site (Page 15)

Community Value and Support for the Use of Computers in School (Page 16)

Modernness of School District's Technology (Page 17)

Availability of Outside Funding for Computers and Software (Page 18)

Computer Program and Curriculum or Curriculum Base for Computer Use (Page 19)

Parent Concerns Beverly Vista (Page 20)

Parent Concerns El Rodeo (Page 21)

Parent Concerns Hawthorne (Page 22)

Parent Concerns Horace Mann (Page 23-24)

Parent Concerns Beverly Hills High School (Page 25)

Teacher Concerns Beverly Vista (Page 26)

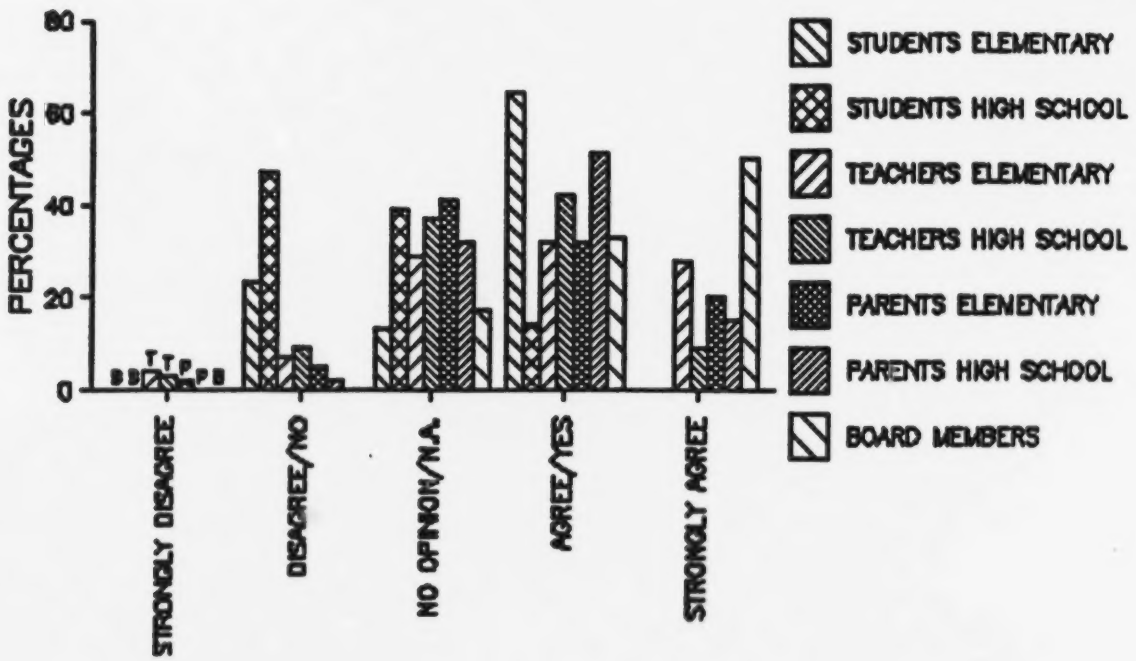
Teacher Concerns El Rodeo (Page 27)

Teacher Concerns Hawthorne (Page 28)

Teacher Concerns Horace Mann (Page 29)

Teacher Concerns Beverly Hills High School (Page 30-31)

Perceived Value of School Computer Labs



Respondents	Actual Questionnaire Item Number	n	Response Percentage (%) Strongly Disagree	Disagree No	No Opinion Not Applicable ?	Agree Yes	Strongly Agree
Students							
Elementary	7	344	-	23	13	64	-
High School	7	194	-	47	39	14	-
Teachers							
Elementary	9	110	4	7	29	32	28
High School	9	111	3	9	37	42	9
Parents							
Elementary	9	225	2	5	41	32	20
High School	9	87	0	2	32	51	15
Board Members	19	6	0	0	17	33	50

Notes: n - This is the heading of the column within which the total number of respondents is given.

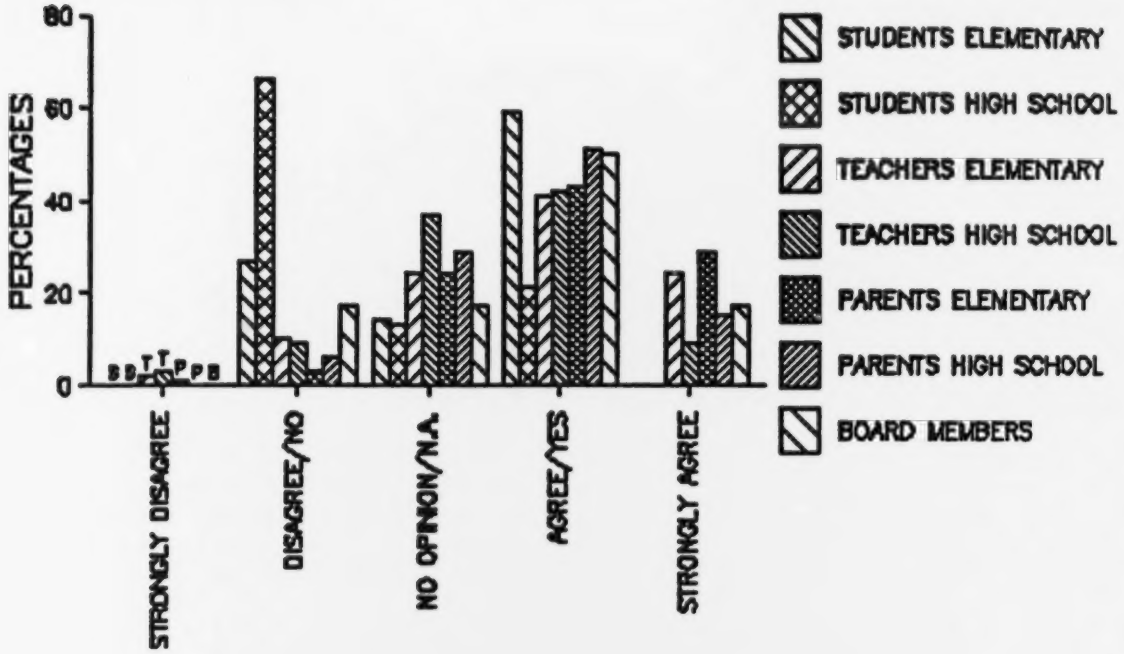
- The only response categories available to students were: "Yes", "No", and "?".

Board Members include board of education members and foundation board members.

Most adult respondents value the computer labs.

23 percent of elementary students and 47 percent of high school students disagreed with statements indicating a value in school labs.

Perceived Effectiveness of Computer in Improving Student Performance



Respondents	Actual Questionnaire Item Number	n	Response Percentage (%) Strongly Disagree	Disagree No	No Opinion Not Applicable ?	Agree Yes	Strongly Agree
Students							
Elementary	6	344	-	27	14	59	-
High School	6	194	-	66	13	21	-
Teachers							
Elementary	6	110	2	10	24	41	24
High School	6	111	3	9	37	42	9
Parents							
Elementary	6	225	1	3	24	43	29
High School	6	87	0	6	29	51	15
Board Members	11	6	0	17	17	50	17

Notes: n - This is the heading of the column within which the total number of respondents is given.

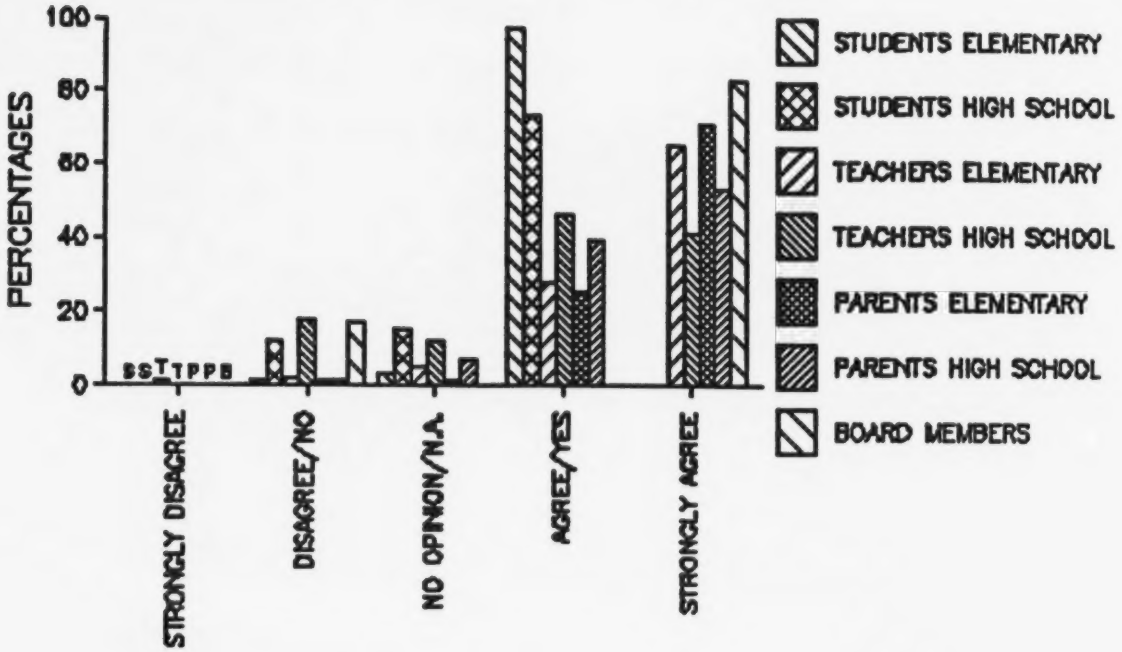
- The only response categories available to students were: "Yes", "No", and "?".

Board Members include board of education members and foundation board members.

Generally, respondents agreed with statements related to the computer's ability to improve instructional programs, make school work easier, etc.

66 percent of high school students disagreed with this class of statements.

Perceived Value and Support of Computer Use in Schools



Respondents	Actual Questionnaire Item Number	n	Response Percentage (%) Strongly Disagree	Disagree No	No Opinion Not Applicable ?	Agree Yes	Strongly Agree
Students							
Elementary	1	344	-	1	3	97	-
High School	1	194	-	12	15	73	-
Teachers							
Elementary	1	110	1	2	5	28	65
High School	1	111	0	18	12	46	41
Parents							
Elementary	1	225	0	1	1	25	71
High School	1	87	0	1	7	39	53
Board Members	17	6	0	17	0	0	83

Notes: n - This is the heading of the column within which the total number of respondents is given.

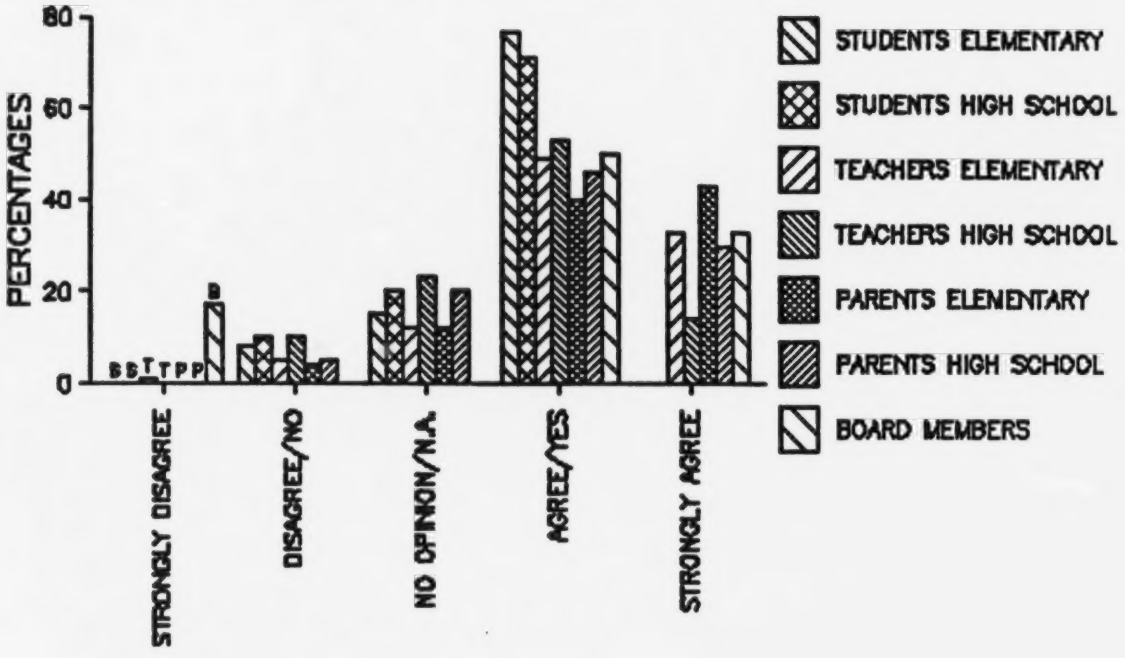
- The only response categories available to students were: "Yes", "No", and "?".

Board Members include board of education members and foundation board members.

Most respondents value and support computer use in schools.

12 percent of high school students and 18 percent of high school teachers disagreed with statements indicating value in computer use.

Perceived Relevance of the Computer Program to the Student's Future



Respondents	Actual Questionnaire Item Number	n	Response Percentage (%) Strongly Disagree	Disagree No	No Opinion Not Applicable ?	Agree Yes	Strongly Agree
Students							
Elementary	5	344	-	8	15	77	-
High School	5	194	-	10	20	71	-
Teachers							
Elementary	5	110	1	5	12	49	33
High School	5	111	0	10	23	53	14
Parents							
Elementary	5	225	0	4	12	40	43
High School	5	87	0	5	20	46	30
Board Members	18	6	17	0	0	50	33

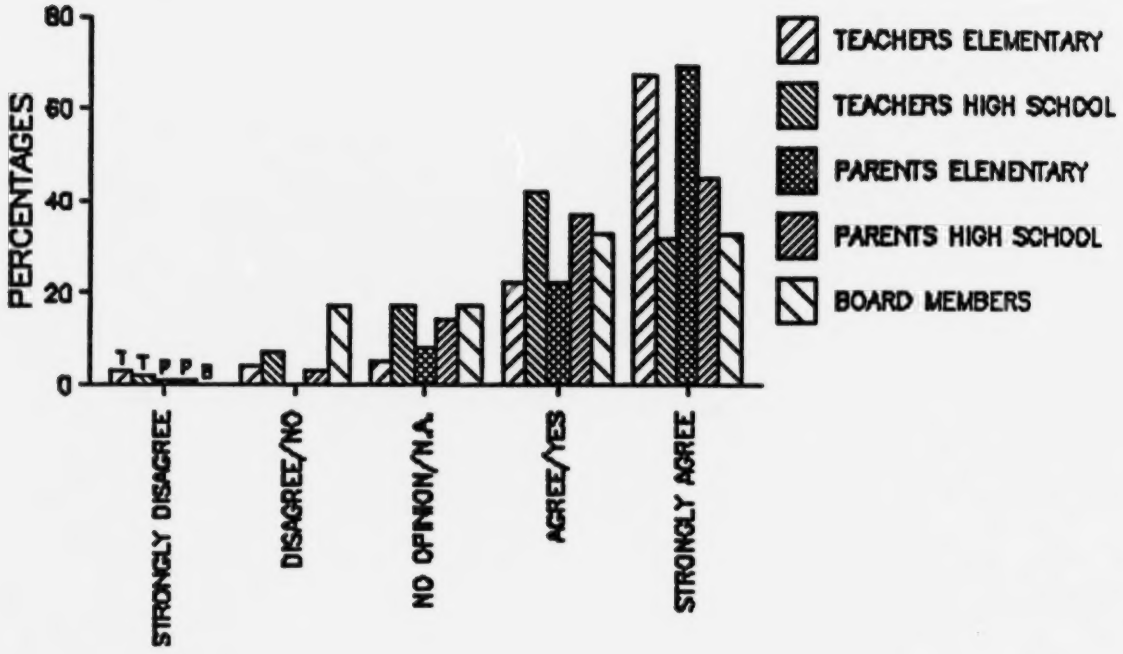
Notes: n - This is the heading of the column within which the total number of respondents is given.

- The only response categories available to students were: "Yes", "No", and "?".

Board Members include board of education members and foundation board members.

Most respondents perceive the computer program has relevancy to the student's future.

Perceived Value of Having a Computer Resource Teacher at Each Site.



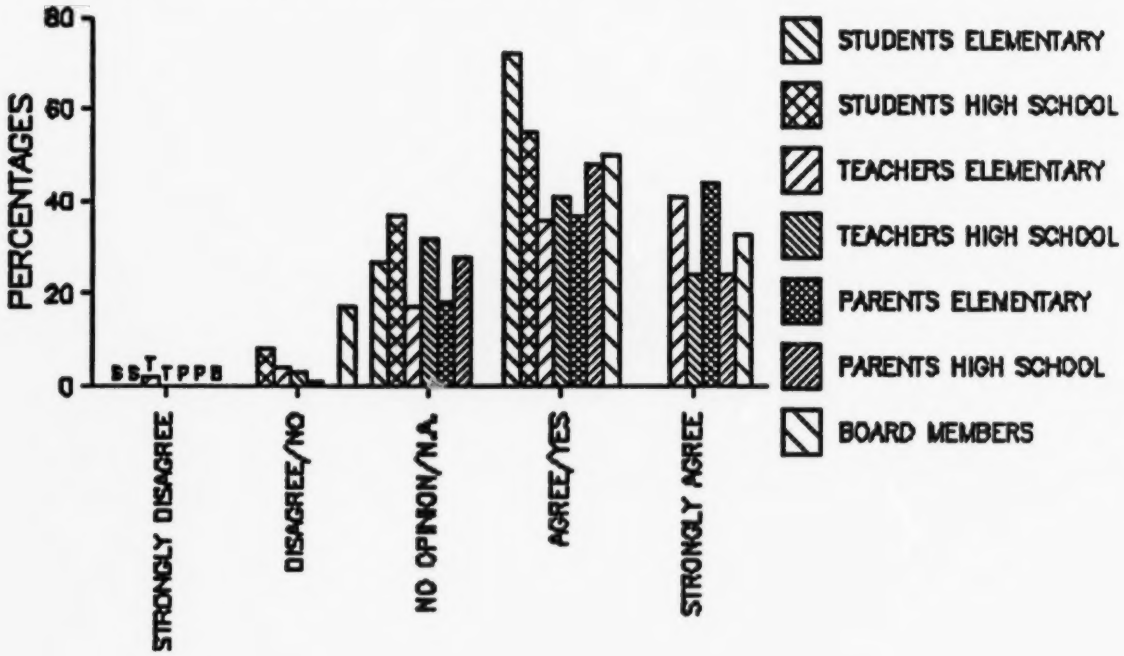
Respondents	Actual Questionnaire Item Number	n	Response Percentage (%) Strongly Disagree	Disagree No	No Opinion Not Applicable ?	Agree Yes	Strongly Agree
Teachers							
Elementary	8	110	3	4	5	22	67
High School	8	111	2	7	17	42	32
Parents							
Elementary	8	225	1	0	8	22	69
High School	8	87	1	3	14	37	45
Board Members	20	6	0	17	17	33	33

Notes: n - This is the heading of the column within which the total number of respondents is given.

Board Members include board of education members and foundation board members.

Generally, the Computer Resource position is valued by all respondents.

Perceived Community Value and Support for the Use of Computers in School



Respondents	Actual Questionnaire Item Number	n	Response Percentage (%) Strongly Disagree	Disagree / No	No Opinion Not Applicable / ?	Agree / Yes	Strongly Agree
Students							
Elementary	3	344	-	0	27	72	-
High School	3	194	-	8	37	55	-
Teachers							
Elementary	2	110	2	4	17	36	41
High School	2	111	0	3	32	41	24
Parents							
Elementary	2	225	0	1	18	37	44
High School	2	87	0	0	28	48	24
Board Members	16	6	0	17	0	50	33

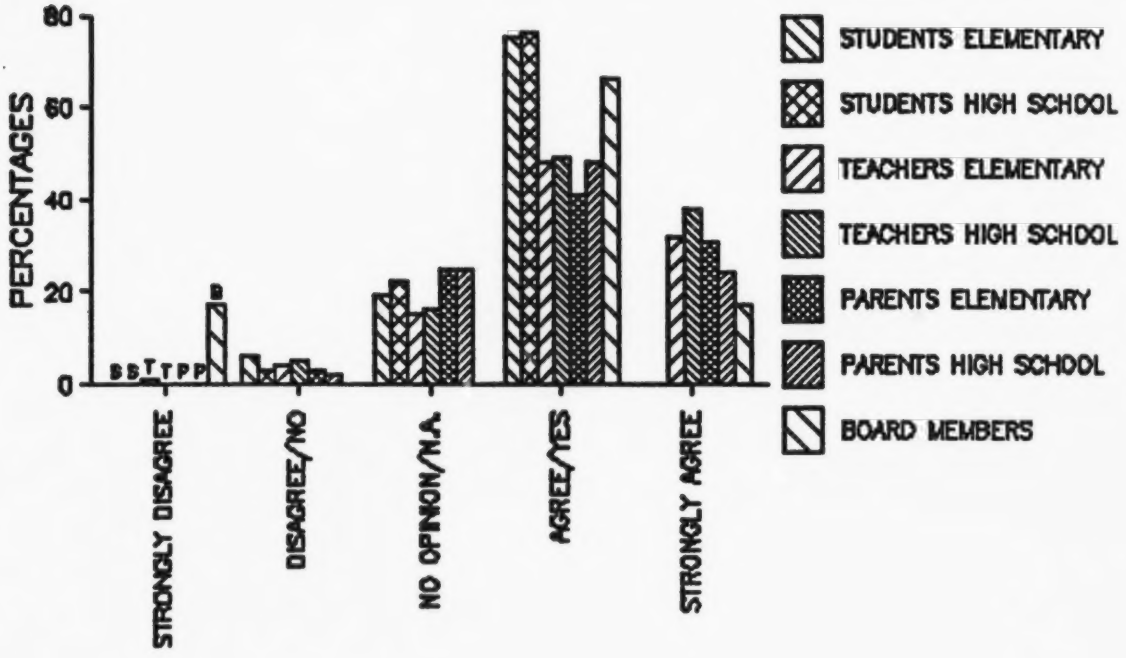
Notes: n - This is the heading of the column within which the total number of respondents is given.

- The only response categories available to students were: "Yes", "No", and "?".

Board Members include board of education members and foundation board members.

Most respondents believe the community values and supports the use of computers in school.

Perceived Modernness of School District's Technology



Respondents	Actual Questionnaire Item Number	n	Response Percentage (%) Strongly Disagree	Disagree No	No Opinion Not Applicable ?	Agree Yes	Strongly Agree
Students							
Elementary	4	344	-	6	19	75	-
High School	4	194	-	3	22	76	-
Teachers							
Elementary	4	110	1	4	15	48	32
High School	4	111	0	5	16	49	38
Parents							
Elementary	4	225	0	3	25	41	31
High School	4	87	0	2	25	48	24
Board Members	4	6	17	0	0	66	17

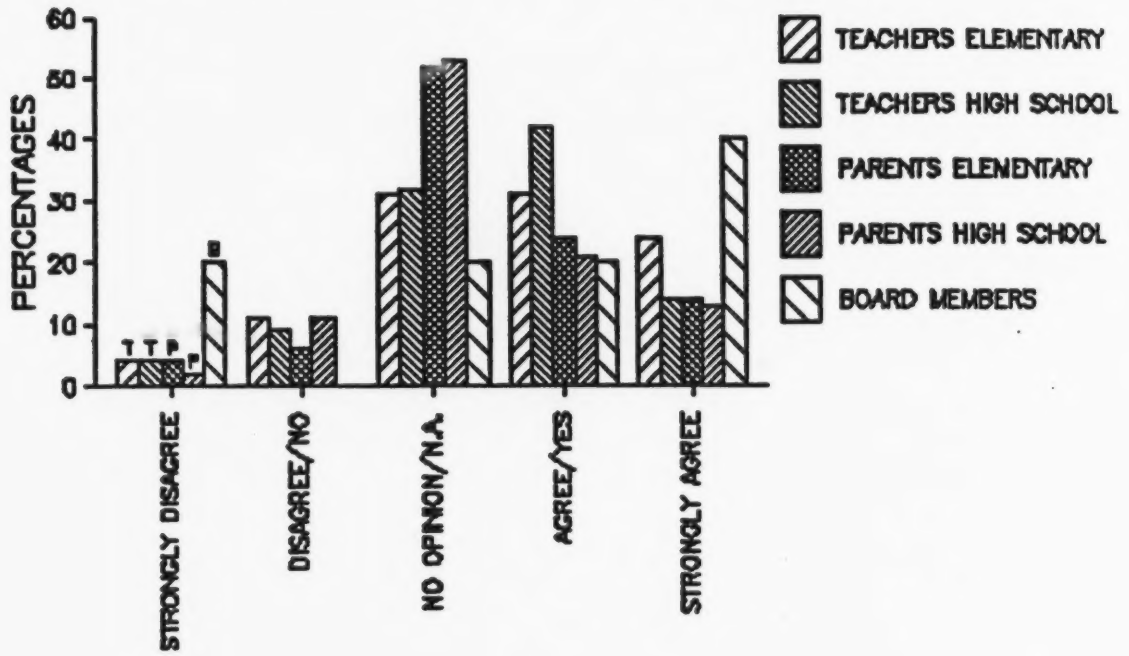
Notes: n - This is the heading of the column within which the total number of respondents is given.

- The only response categories available to students were: "Yes", "No", and "?".

Board Members include board of education members and foundation board members.

Most respondents believe the school district's technology is modern.

Awareness of Availability of Outside Funding for Computers and Software



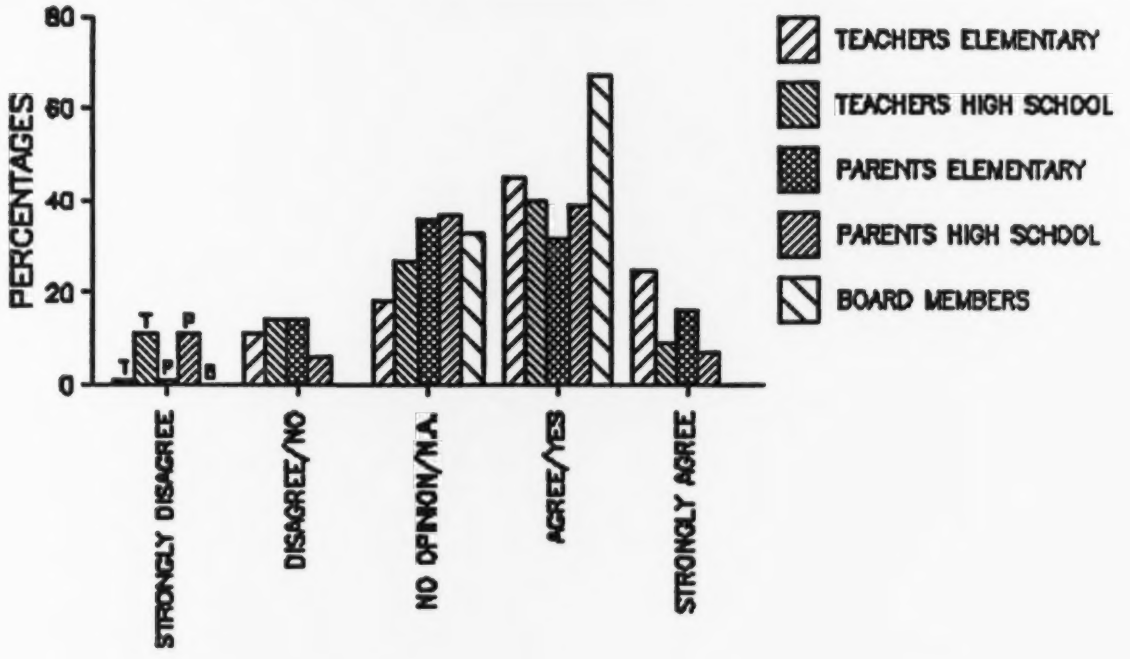
Respondents	Actual Questionnaire Item Number	n	Response Percentage (%) Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Teachers							
Elementary	7	110	4	11	31	31	24
High School	7	111	4	9	32	42	14
Parents							
Elementary	7	225	4	6	52	24	14
High School	7	87	2	11	53	21	13
Board Members	7	6	20	0	20	20	40

Notes: n - This is the heading of the column within which the total number of respondents is given.

Board Members include board of education members and foundation board members.

Approximately 50 percent of the respondents indicated they were not aware of the availability of outside funding sources or that outside funds had been used to pay for district programs.

Awareness of Computer Program and Curriculum or Curriculum Base for Computer Use



Respondents	Actual Questionnaire Item Number	n	Response Percentage (%) Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Teachers							
Elementary	3	110	1	11	18	45	25
High School	3	111	11	14	27	40	9
Parents							
Elementary	3	225	1	14	36	32	16
High School	3	87	11	6	37	39	7
Board Members	5	6	0	0	33	67	0

Notes: n - This is the heading of the column within which the total number of respondents is given.

Board Members include board of education members and foundation board members.

Most respondents indicated awareness of the District program, curriculum or the curriculum bases for use of technology.

13. LIST TWO CONCERNS YOU HAVE REGARDING COMPUTERS IN OUR SCHOOLS.

Beverly Vista - Parents

All children should be able to use the computers.
A full time computer teacher should be available.
I am concerned that there are not enough computers for the children to have access as often as needed.
Sufficient computer time.
Not enough computer instruction hours during the week for 3rd and 5th grades.
Should have homework on computers.
I don't feel my child receives enough time on instruction.
That enough importance is placed on this facet of her education.
The computer programs at the four schools are not equal. Some schools have better programs.
Not enough of them; not enough trained teachers to show our children how they work.
The children should be offered the chance to learn all about computers and have enough time to finish their programs.
Computers should be in the school because of its importance as a learning tool.
Only concern would be that you might discontinue or limit the program and teaching staff.
Substitutes should be hired when teacher is absent.
Small groups of students, many students need more time with their instructors.
Not enough software.
Not enough teachers are concerned (or aware) about using the computers.
There are not enough computers and instructions for them in our school!
Teachers need to be skilled as to how to use it.
This should be mandatory!
Computers should be learned at an early age.
Elementary computer labs are important, especially for the students who do not have computers at home.
Hours are short.
Not enough computers in each class.
The quality of the software programs.
If further budget cuts are un-avoidable, I would rather see this program cut than the library, arts, music and physical education.
Not enough time.
Without home ownership it is wasteful until higher grades when it can be taught as an extra skill.
Too few lessons.
Because it helps children learn more things and help them to understand more things.
Not frequent enough use.
Not enough instruction, not using to enhance academic studies.
No specialized teacher.
Not enough time set aside.
One type of computer (Apple) has limited software compared to I.B.M.
That a constructive program exists.
That more than "lip service" is paid to such a program.

13. LIST TWO CONCERNS YOU HAVE REGARDING COMPUTERS IN OUR SCHOOLS.

El Rodeo - Parents

Will become paramount at the cost of losing other programs i.e., home economics, art, wood.
I am very pleased with what my children have told me about their computer classes.
Will not always be there for our children because of cutbacks and not enough given time in a day.
Consistent instruction from one grade to next.
Availability
Inadequate time in the computer lab.
I hope instruction continues in this very important field.
Having more computers.
Need for innovation, new programs and enthusiasm.
Not enough "hands on" time.
Should use IBM or other MS-DOS compatable hardware and common business applications.
They remain teaching our children all aspects efficiently.
We get money to improve the program.
That it becomes a play area once basic skills are mastered and not a place to take a challenge.
If there is no lab teacher the children will not be as informed. I use the resource person as a guide to purchasing materials answer questions.
Do the children get enough hands-on experience other than playing games?
The learning process of logical thinking and rationale may be affected if structured and program teaching my computer is increased.
The cost implication of hardware and software requirements may be exorbitant and beyond the reach of many kids.
Students must be taught proper methodology.
That one computer was not chosen years ago for the school district to be compatible with what we bought at home, so that parents and child could use the same system.
That a well qualified resource teacher teach the class.
Concern over constant use on eyes.
Wordprocessing
Computer availability to each and every student.
How effective is the computer program.
That my child will not have enough usage and learning because of limited facilities and time.
The program will not be successful without a resource person.
Children need to learn the computer at an early age for complete comfort.
That computer use not be a substitute for individual teaching.
That the logic of the problem answer be understood by the pupil

13. LIST TWO CONCERNS YOU HAVE REGARDING COMPUTERS IN OUR SCHOOL.

Hawthorne - Parents

Are children being taught how to use them.
Are they constantly being upgraded.
More of how to use computers.
Poor application to students needs.
Lack of time for instructor and practical use.
Not enough computers.
Not modern.
Students should learn the basics of using computers.
They should have more computer labs.
New times, New technology.
To help my children.
They are being trained for a career.
That there are enough for all children to use.
Time available for use.
The resource teacher may not be strong enough, the kids say its a waste of time.
Logo and typing.
I think it is very important that every school has computers so students can be ready for the high technology in the future.
The funds for "computer teachers" will be cut leaving regular unprepared classroom teachers to do highly specialized work.
My son spent too much money and time on it.
I hope they are here to stay and not taken away.
It could be a waste of time for children who are using computers at home and are far past what the program is teaching at school.
We need more computers for the number of children that we have.
I think we should have more learning tools in school.
I think we should have a stronger budget in all school systems for more software and more learning with computers. Not all games but work. They should earn the right to play games.
Computers should be taught at first grade each year. The students should have some experience with the computer.
The two concerns I have regarding computers are if they have been used correctly and if they are used enough.
The computers are well-educational but the disks get ruined sometimes.
They don't use them enough.
They should have more time with a computer specialists.
Not enough time spent teaching computer sciences.
It's too expensive. My boy's spend to much time on it.
There should be more computer sets at Lab.
Students to have more time to on the computer.
Are they given enough good, quality time with the computer.

13. LIST TWO CONCERNS YOU HAVE REGARDING COMPUTERS IN OUR SCHOOLS.

Horace Mann - Parents

None! On the contrary I think they should be used more often!
Computers prepare students for a future in a technological society.
I think it is extremely important for the students to know how to use computers.
Great I would support using more computers to supplement whats available and I am all for any knowledge of computers for my child.
Are teachers trained to use and instruct?
Do students have enough time to profit from the availability of the machines? If each student only gets a few minutes computer time, how much can he/she learn?
Not enough school time for computers.
Teaching application for every day use.
Too much emphasis on computer programs may divert attention away from basic subjects such as math.
Elementary knowledge of computer programming is useful and can be introduced at any grade (even 12th) and still not be to late.
Are we teaching computer science or strictly use orientation?
Are we using the computer wrongfully, so as to demise the students need to understand and minimize the potentials of his or her human brain.
Effect of VDT on children's eyesight.
The children are not getting enough time with the computers.
Not enough individualized teaching for children with varying skills.
To make my child learn more and faster.
Future progress.
Computers will be an essential tool for the future of children when their time comes.
It will be advantageous to have them get used to it as early as we can prepare them.
The children do not get enough time on the computers in terms of lab time.
The children need more individualized training.
I am concerned that if they are not used/learned in school student won't be as prepared for the future.
Also, having to learn to use computers later may be more difficult when the child is older or the child may not get another opportunity to learn.
There should be more computer time in school.
There should be more printers available.
Not enough curriculum and computers.
Need additional computer teachers.
That the computers are used to full capacity.
That we have enough computers for hands on experiences.
Over exposure.
Happy and pleased about it.
I do not want the program discontinued.
I feel that it is important for the students to have this background.
I like to see my children learn how to write basic programs, and if possible they will do their home work by using computers.
Training of teachers for efficient use of computers within the classroom.
More computer classes for primary grades.
Funds will be diverted from other, essential programs.
That the program may suffer from lack of funds.
You can play a lot of games on them and I feel lucky our school can afford computers.

Not enough times a week. The need for more computers.
That they should be used constructively. Practical and professional teaching of their use.
Learning the use of computers make a young mind "technologically lazy?"
How will the program be funded?
If any of these programs are lost the children loose.

13. LIST TWO CONCERNS YOU HAVE REGARDING COMPUTERS IN OUR SCHOOLS.

Beverly Hills High School - Parents

Word processing
Counseling
Students will misuse of them.
They do not appear to be well integrated into the curriculum.
Program in middle school was very minimal. Do you really try to expose all students to computers?
Students getting ample hands on learning.
Students Learning about programs.
To much emphasis on programming.
Training too specific for particular brand of hardware as operating system.
Expanding computer classes.
With the growing use of computers in today's business and industrial world it is vital that our children receive as much computer training as possible.
More usage of computers.
I don't feel computers are necessary for the academic learning of my child. It is an office machinery skill and it's not academic.
Selection of appropriate software other than drills, games, etc.; encouragement of computer literacy in areas of programming/writing original programs.
Proper use and understanding.
Misusing the computer for illegal things.
Using it for assignments, example, math-work.
Eye strain
Ability to review updated and lost of doing so.
That they are put to a good use.
Each student gets a chance to become familiar with it.
That the kids get taught well.
Computers are vastly becoming a part of our future, without a doubt computers will be used in everything from work to school
Grades
That people will get to wrapped up in them.
No real concerns except that the classes are taught properly and completely.
Tampering, learning capability.
Impedes independent thinking and other modes of solution processes.
Costs vs. value
They do not take the place of essential studies.
Taking a course should become a requirement.
More classes should be available.
Keep teaching basic spelling and math. Don't let children be dependent on computers.
That with the amount of computers in our school we should have more advanced teaching.

15. LIST TWO CONCERNS YOU HAVE REGARDING COMPUTERS IN YOUR TEACHING AREA.

Beverly Vista - Teachers

Not enough lab time for my class.
Have a computer in class only a limited period.
Make time for computers?
I would like to have one in my classroom for individualized teaching of ESL students.
I would like more training in programming.
Not enough time to share knowledge with computer experts. Not enough time to evaluate software.
Not enough time to allow students to discover things on the computer.
Possibly computers could be placed in two labs, K-4 or 5 and 5 or 6-8 and students could be offered more time.
Software is a great concern. It has been very slow in coming. Individual teachers want to drill and practice so kids can use computers without assistance.
At a first grade level it is difficult for the student to operate the programs by themselves. I usually need a parent volunteer to man the computer.
There is not enough appropriate software for little children.
Need color monitors for at least one of the programs at my grade level, as yet no color monitor is available for classroom use.
A computer in every classroom would be a valuable addition.
I would like more software at the primary level.
It would be beneficial for those students with greater interest or aptitude in this area to have more opportunities to use the computers.
Not enough software appropriate to my grade level.
You often need an adult to help the students with the computers.
It's hard to integrate it into the curriculum.
Numbers of students.
Time on computer for specific lessons in classroom.
Most software is very complicated.
As a demonstration tool rather than a question and answer tool in science.
Need them in the classroom!
I would like to see a computer available to look up a child's records in the counselor's office, and to keep records in the counselor's office.
I would like to have one permanent computer for the library that would be for student and staff use.
It must either be taught as a discreet subject with all of the accompanying accountability or it must be incorporated into the classes in which it is being used.
Lack of software in my area.
Need for better organized programs.
Effective use of it in classroom with the time factor as the problem (there is so much to be done already, besides adding computer work even for below grade level students.)
That teachers are not being educated in the use and instruction of computers.
The curriculum is not given to the classroom teacher. I feel the classroom teacher should teach the lesson, therefore learning necessary skills to provide an excellent computer program and costing the district less money.
The classroom teacher is capable and needs a daily computer program as well as the six week (one day a week) lab program.

15. LIST TWO CONCERNS YOU HAVE REGARDING COMPUTERS IN YOUR TEACHING AREA.

El Rodeo - Teachers

With 40 minute periods and an extensive curriculum to cover, it is difficult to use computers without taking time away from rest of class.
Noise is distracting teaching.
I would like a computer all year round.
I would like some suggestions of time/management systems.
Still do not feel comfortable, children are much more at ease.
Time constraints with all subject areas to teach.
Time, loaded curriculum makes it difficult to fit in at an optimum level.
Diversity of use for primary grades.
Am concerned that cuts will cause us to not have a resource person.
Not enough computers for each classroom. We have to share.
Teachers need more training.
The computer has been a fabulous teaching tool for my learning disabled students.
The wordprocessor and printer has motivated my students to read and write much more than before.
Not enough time to plan how to utilize and integrate computers into the curriculum.
Not enough software to spread around to all rooms with computers.
I don't like the idea of losing my computer this month. I could use one year round.
I hope computer clubs will continue to have time to make individual diskettes for my students' individual needs. So far, the system has worked very well!
I wish I had more time to include more computer work in my class.
I would like to use the computer to record grades.
Musical composition?
Need to know how to use a computer.
Not enough for classroom use.
Not enough software.
I'd like to be asked what software I need.
I would like to have a computer and software available to reinforce my special reading program.
Would like more software!

15. LIST TWO CONCERNS YOU HAVE REGARDING COMPUTERS IN YOUR TEACHING AREA.

Hawthorne - Teachers

Students will attend more to the computers then on the subject being taught.
Concepts that are easily programmed will be emphasized over concepts that are not easily programmed, but which are of equal or greater importance.
I feel that when children tend to rely on what the computer can do for them they do not make an effort to solve problems creatively on their own.
Having enough software that is appropriate for my class.
It is a wonderful tool, but I need to find the time to apply this tool to my programs.
How to get one.
The best way to use it most effectively.
How would I set up a rotating system and monitor the noise behavior problem that will go with it?
My biggest fear is not having the computer to use. It has changed my program completely and the students have improved dramatically in several academic areas.

15. LIST TWO CONCERNS YOU HAVE REGARDING COMPUTERS IN YOUR TEACHING AREA.

Horace Mann - Teachers

Too many children in one class to use computers.
I don't know how to use one.
Grade level and quality of software on the market.
How to utilize computer effectively for music instruction within a class situation?
Availability of appropriate software. Time to use it.
Time in curriculum.
I would like to have them in my classroom.
I seem only to be able to implement the use of computers on an individual student basis. Not with the whole class.
Not enough software I would like even more computer class time with a qualified teacher.
Students in first grade unable to read directions.
Need corner for computer so children at seats are not disturbed.
Lack of software.
Lack of hardware.
Periodic inservice.
Periodic knowledge of current software.
More software for individualized needs, abstract problem solving.
There does not seem to be enough software available for use in the ESL classroom. Perhaps this needs to be researched more carefully.
Special services is not using computers to keep records, prepare IEP's on site levels (in school sites - some record keeping in office now being used.)
Computer use is very inconsistent and sporadic across special education discipline. Need to develop more comprehensive program between specialists.
I'd like to become familiar enough with my classroom computer so as to use it for managing student records and make up student tests.
Student/Computer Ratio
Not enough curriculum TIME.
Not just for drill but more for sequencing and main idea comprehension.
Computer will take the place of teacher or textbooks.
Computer will be used for games.

15. LIST TWO CONCERNS YOU HAVE REGARDING COMPUTERS IN YOUR TEACHING AREA.

Beverly Hills High School - Teachers

Updating
How to give each student quality time on the computer on regular intervals.
Useful software for enrichment instruction.
General uncertainty about the instructional use of computers for history.
There is no time to review what we have (in software) so it is impossible sometimes to develop lesson plans to include programs.
Over emphasis
Not enough in any location. No computer lab where everyone of my students can have a terminal or a computer.
Teacher expertise in using computers and demonstrating plans for students,
Teacher training programs needed.
Keeping disks stored in operating order.
Need for department of computer classes.
More units for additional jobs.
Would like pay for inservice training/study of computers.
Not enough software available at school.
Inconvenience of moving the traveling computer from room to room (building to building).
Not enough terminals for students to drill on.
With only one computer available in my classroom it is difficult to make good use of it during class time.
We have no time to use them and not enough of them.
There are not enough for teacher's and students use.
Won't be able to master it.
Lack of software.
Lack of time to find what is available and how to use it.
No time to become familiar with them.
No way to know how they can be helpful.
Their teaching effectiveness.
The quality of computer programs designed to teach and drill.
Affluent students with access to technology not available to less affluent ones e.g. modums with which to access various data sources.
Limited software.
Maintenance training of staff.
Upkeeping, keeping them cleaned and well running.
More training.
Inservice for teachers.
Time to study and organize use of software.
Time to learn materials, etc.
Getting equipment in place. Adequate training.
Time to use the computer in class.
Good software.
There are not enough computers in the classroom for each student.
No time for teacher training before software and hardware is implemented in classroom.
Finding time for the students to use them.
Finding appropriate software.
Time to prepare and set up appropriate use.
Access
We do not get adequate (any) release time for either training ourselves on the new software or attending professional training schools for the software.

We do not get adequate (any) release time to develop the necessary curriculum assignments needed with each new software package.
Lack of software.
Lack of availability.
Lack of expertise.
Funds have been diverted from other equipment areas which I value more.
Teacher time involved for use is excess for the benefit received.
I don't have the time as it is to get through the required subject matter.
If we could develop adjacent lab time open 7 days a week 7 a.m. - 11 p.m. similar to Cal states, I would be cooking!!
I don't even have time for the labs I would like to do. Can we sell or rent programs? Rent computers to students?
How to apply usage.
How to get funding to have a computer in my classroom.
Sufficient availability to micros.
Sufficient software.
Students have insufficient time to use available English Department software committee set up excellent resources.
We need training.
Need more info on programs available.
Little valuable software in the he field of biology observed.
My classes cannot use the computers due to lack of instruction and instruments.
Now that $ is so tight in the District, I wonder how wise it is to spend so much on the computer program when students time is not made available to use material, etc.
No computers available for class use.
In instruction or release time for teachers.
Lack of preventative maintenance. We are waiting till they break down.
Lack of trianing.
Students are unable to find time to use the computers in our department.
The personal relationship so valuable with my students will be lost.
English is not a science, I don't wish to make it one.
Someone available to explain to me how to use computers. It was not available before.
Suitable software
Students need human contact. They watch enough TV at home. To use computers to learn students must first be able to read and be motivated to read. The software must be good.
I would like to have one for my classroom.
Someone should appreciate the value of a computer and its uses with special education children.
People think computers and math are the same.
Finding out the best and the most appropriate programs.
Expense
No time for students to use computers.
Inadequate space
Will they be available for every classroom.
Availability of software.
Quality programs. Elimination of mode 70 leaves students no free time to use computer for remedial/individualized instruction.
Nobody is computer literate!
We are unaware of software programs that can benefit us.

ELEMENTARY FINDINGS

THE STUDY TEAM COMMENDS...

The school district and the Beverly Hills Education Foundation for their financial support and commitment to the program.

The parents and citizens for the donation of equipment and time.

The District Administrators and Building Principals for their support of the computer program.

The Computer Resource Teachers for:

- o Their efforts to coordinate and implement site computer programs.
- o Their enthusiasm and dedication.
- o Their constructing of a uniform computer scope and sequence in Grades K-8.

The teaching staff for:

- o Their positive attitudes.
- o Their willingness to be flexible and accommodate the computer program, integrating it into their current programs.
- o Volunteering for inservice training during the 84-85 school year.

The schools for providing parent training in computer uses and software selection for children.

The school secretaries for their cooperation with the Computer Resource Teachers.

The students for their enthusiasm and willingness to come to the Computer Laboratory on their own time, during and after school hours.

RECOMMENDATIONS

CURRICULUM

(1) It is recommended that a system be established at each school to ensure continuity between computer lab work and classroom work.

Many uses of the computer in the computer labs were observed which did not directly relate to specific classroom curriculum goals and objectives.

(2) It is recommended that site microcomputer steering committees be established at each school to provide leadership and coordination of microcomputer plans (school and district). It is further recommended that site computer utilization plans focus on the integration of computer use into the curriculum.

Site microcomputer steering committees were not observed at all elementary sites. Growth of the computer program has brought increased complexity and need for site leadership and coordination internally, articulated with other sites and district efforts. Processes for ensuring curriculum use with technologies were not observed. Curriculum should be the basis for the use of computers and the work of the committee.

(3) It is recommended that an accountability process which relates to student work with computers be established at each school. Clear goals and objectives should be written for all curriculum based computer work including evaluation criteria and monitoring methodology.

Monitoring of student computer work was observed to be done through a variety of methods. Clear goals and objectives were evident in the Computer Education classes but not in the observed curricular use. Students frequently were not able to express clearly the reasons why they were doing certain tasks with the computer.

(4) It is recommended that a keyboarding program be designed and implemented. The program should provide ongoing reinforcement of skills.

Even though the "PAWS" keyboarding program was seen in use at the upper-grade classes, most students were observed using poor keyboarding techniques.

TRAINING

(5) **It is recommended that a systematic training program be implemented for teachers to accomplish the site and district goals for the use of computers. An integral part of this plan should be to provide key training during non-student time. All teachers should have the opportunity to attend inservice training sessions on the use of computers for instructional purposes, including: (a) strategies for incorporation of computer technology into the curriculum (b) planning for the scheduling of instructional computer use.**

Teachers were observed having difficulty using the computer as an integral part of the academic curriculum. Computer training programs have been offered only as an after school activity. Many teachers have not taken advantage of this program. By offering training on non student days, more teachers will have the opportunity to participate.

(6) **It is recommended that all teachers be given the opportunity to learn how to use a microcomputer in the management of their instructional programs (word processing, grade management, work sheet production, etc.)**

Limited use of the computer to help teachers manage their classrooms was observed. Equipment (computers and printers) is available at each site. Few teachers are utilizing the opportunities available to them in the area of instructional management.

(7) **It is recommended that release time be provided for inservice training in the use of computers. Teachers who have not received adequate inservice training can then gain confidence in the proper use of the equipment.**

Many teachers expressed apprehension and concern about using the equipment and software. Some felt that many students know more than they do.

(8) **It is recommended that comprehensive inservice be provided to teachers to bring them to a level of computer literacy and comfort that will allow them to work effectively with students.**

Some teachers are unaware of the uses of microcomputers for classroom and management purposes. Additionally, teachers were observed who appeared to be uncomfortable in using the computer in their classrooms.

(9) It is recommended that inservice workshops in evaluation and selection of instructional software and related materials be provided to teachers.

It was observed that some teachers were unable to make appropriate decisions about software selection for incorporation into classroom instruction.

ARTICULATION AND COORDINATION

(10) It is recommended that a process for providing continuity and articulation between 8th grade and 9th grade computer programs be established.

Increased numbers of students who are entering the 9th grade have completed upper elementary Computer Education programs. Clear articulation of program goals, objectives and processes were not evident between the two programs. Student preparation for the high school program is varied.

(11) It is recommended that a full-time computer instructor be assigned to the labs with school-wide coordination responsibilities. A part-time instructional aide should be assigned to assist with lab duties.

The computer labs are served by part time instructors, thereby limiting the amount of time the lab may be utilized.

(12) It is recommended that site plans focus inservice training in the use of computers in the curriculum initially on those teachers who express interest and/or willingness.

It was observed that while some teachers did not know how to use computers to support their instruction many, expressed interest in developing skills in this area.

SOFTWARE

(13) It is recommended that a formal process for the review, evaluation and purchase of microcomputer software, which is consistent with the proposed district process, be established at each site.

A variety of software was observed in use. The process used to evaluate and purchase microcomputer software and related materials were unclear. Direct relationship between purchases of software and curriculum was also not evident.

(14) It is recommended that a current list of microcomputer software in use at each site be published and made available throughout the district.

Many teachers were unaware of what software was available for use at their site and throughout the district.

(15) It is recommended that additional software designed for the ESL program be purchased.

The ESL program has unique needs and therefore requires special software.

(16) It is recommended that additional software be purchased to eliminate the necessity of rotating software among elementary schools.

The amount of software programs available is somewhat limited considering the grade levels being served and size of the elementary school population.

HARDWARE

(17) It is recommended that the district study the feasibility of adding telecommunications hardware and software to each site.

Use of telecommunications was not observed. A telecommunications program would allow children to be educated in the uses of the computer as a means to do research, have access to current information, and communicate with other computer systems. Telecommunication skills are an important aspect of any computer science curriculum.

(18) It is recommended that large monitors on carts be made available to use with computers for classroom instruction.

Use of computers was observed to be limited to individual and small group instruction.

(19) It is recommended that additional hardware be purchased to complete the goal of the District master plan to provide each K-5 classroom with a computer.

One computer in each K-5 classroom was not observed. This severely reduced the effectiveness of the curricular use of the computer, especially in ESL and special education programs.

(20) It is recommended that printers be provided for computers placed in classrooms for curricular use.

Many computers placed in classrooms for curricular use did not have printers. The curricular use of computers is greatly enhanced when a printer is available. This is especially true whenever the student is required to produce written material. Printers also allow teachers the use of additional instructional management applications.

HIGH SCHOOL FINDINGS

THE STUDY TEAM COMMENDS...

The school district and the High School Administration for:

- o Its provision of an exemplary Computer Education program at the High School which offers students rich and varied experiences with computer technology, meeting the stated goals of the District's five year plan.
- o A High School graduation requirement for Computer Education which may be satisfied through a variety of courses.
- o Well equipped computer laboratories which permit the lowest possible student-to-computer ratio in the Computer Education classes.

The High School teaching staff in the Computer Education program for:

- o Focusing the Computer Education classes on the application uses of computers so that students are exposed to word processing, data base, spread sheet, etc.
- o Revising Business Education classes by incorporating modern technology reflecting the type of equipment and tools students will find in the work place.
- o Establishing a Social Science Resource Center (Computer Lab) and a schedule which supports its use by all teachers.

The High School Administration for:

- o Supporting the use of computer technology in curriculum areas.
- o Using a variety of funding sources to equip classes with needed equipment and software.

The innovative teaching staff for integrating computer technology into their instructional programs.

The High School students for the serious attitude demonstrated in Computer Education classes.

RECOMMENDATIONS

CURRICULUM

(21) It is recommended that an accountability process which relates to student work with computers be established at the high school . Clear goals and objectives should be written for all curriculum based computer work including evaluation criteria and monitoring methodology. Students should be made aware of the specific objective(s) for their work on the computer.

Monitoring of student computer work was observed to be done through a variety of methods. Clear goals and objectives were evident in the Computer Education classes but not in the observed curricular use. Students frequently were not able to express clearly the reasons why they were doing certain tasks with the computer.

(22) It is recommended that the instructional use of software include higher order thinking skills.

Primary use of curriculum software was observed to be in the area of drill and practice.

(23) It is recommended that a site microcomputer steering committee be established at the high school to provide leadership and coordination of microcomputer plans (school and district.) The computer steering committee should be comprised of the site computer coordinator and members from various curriculum departments. It is further recommended that site computer utilization plans focus on integration of computer use into the curriculum.

A site microcomputer steering committee was not observed at the high school. Growth of the computer program has brought increased complexity and need for site leadership and coordination internally, articulated with other sites and district efforts. Processes for ensuring curriculum use with technologies were not observed. Curriculum should be the basis for the use of computers and the work of the steering committee needs to be coordinated with existing curriculum committees and district efforts.

(24) It is recommended that computer utilization be included in the work of the curriculum committees and articulated with the computer committee.

It was observed that most curriculum committees do not consider computer utilization in their planning.

(25) It is recommended that the teaching of BASIC programming be reevaluated.

Clear understandings of why BASIC is taught needs to be determined. If BASIC is taught, clear goals and objectives which lead to identified learner behaviors should be identified. It was observed that consensus for teaching BASIC did not exist at the high school.

TRAINING

(26) It is recommended that all teachers be given the opportunity to learn how to use a microcomputer in the management of their instructional programs (word processing, grade management, work sheet production, etc.)

Little use of the computer to help teachers manage their classrooms was observed. Equipment (computers and printers) is available at the high school site. Few teachers are utilizing the opportunities available to them in the area of instructional management.

(27) It is recommended that a systematic training program be implemented for teachers to accomplish the site and district goals for the use of computers. An integral part of this plan should be to provide key training during non-student released time. All teachers should have the opportunity to attend inservice training sessions on the use of computers for instructional purposes, including: (a) strategies for incorporation of computer technician into the curriculum (b) planning for the scheduling of instructional computer use.

Teachers were observed having difficulty using the computer as an integral part of the academic curriculum. Computer training programs have been offered only as an after school activity. Many teachers have not taken advantage of this program. By offering training on non student days, more teachers will have the opportunity to participate.

(28) It is recommended that teachers continue to be encouraged to take equipment home. Teachers should be scheduled for a period of time when they will have a computer, printer and appropriate software for use at home.

Teachers were observed to be very busy. There is not enough time during the instructional day for most teachers to become comfortable with the use of computers.

(29) **It is recommended that all teachers be provided with up to date information about current grants which may be utilized to increase computer use.**

Few teachers were aware of the variety of funding sources available for computer acquisition.

ARTICULATION AND COORDINATION

(30) **It is recommended that a clear process for the purchase of hardware and software be developed and communicated to all staff.**

Many teachers indicated they did not know who was responsible for making decisions relating to the purchase of computer equipment and software.

(31) **It is recommended that a process for providing continuity and articulation between 8th grade and 9th grade computer programs be established.**

Increased numbers of students who are entering the 9th grade have completed upper elementary Computer Education programs. Clear articulation of program goals, objectives and processes were not evident between the two programs.

(32) **It is recommended that the feasibility of relocating the curriculum computer lab adjacent to the computer science labs be studied.**

The curriculum computer lab is supervised by the same person who monitors the computer science labs during non class time. This has resulted in reduced computer access for the advanced placement students. The recommendation would permit existing staff to supervise both labs at the same time, permitting increased student use of the computers during non class time.

SOFTWARE

(33) It is recommended that a site procedure for the evaluation, purchase, and use of curricular microcomputer software and related books, materials and media be established.

No processes for software evaluation were observed. As the high school enters into the curricular use of microcomputers it will be necessary to have a process which ties together curriculum, teaching strategies and instructional materials. An integrated approach which includes microcomputer materials is suggested.

HARDWARE

(34) It is recommended that printers be provided in a similar ratio for instructional uses of computers as observed in Computer "Education" classes.

It was observed that many computers used for instructional purposes did not have printers.

(35) It is recommended that the district study the feasibility of adding telecommunications hardware and software to the high school computer labs.

Use of telecommunications was not observed. A telecommunications program would allow students to be educated in the uses of the computer as a means to do research, have access to current information, and communicate with other computer systems. Telecommunication skills are an important aspect of any computer science curriculum.

(36) It is recommended that large monitors on carts be made available to use with computers for classroom instruction.

Use of computers was observed to be limited to individual and small group instruction.

DISTRICT FINDINGS

THE STUDY TEAM COMMENDS...

The District for:

- o The development and implementation of a five year computer master plan.
- o The part time staffing of a district computer coordinator.
- o Providing teacher advancement credit (PIP) for computer in service classes.

The school district and the Beverly Hills Education Foundation for:

- o Financial supports and commitment to the computer program.
- o Providing computer labs at all schools in the district.

The parents and citizens for the donation of equipment and in-class time.

The district administrators for their support of the computer program.

RECOMMENDATIONS

(37) **It is recommended that a full-time district microcomputer computer coordinator be provided.**

As the district microcomputer programs expand, it will be increasingly important to provide, district wide, consistent leadership and coordination of all aspects of the program. District funds, equipment, materials and staff need to be used in the most efficient ways. Current staffing levels were observed to be inadequate to fulfill the need.

(38) **It is recommended that coordination of district computer programs be made a priority.**

Many efforts were observed to coordinate district computer plans including the district five year plan. Staff time was observed to be inadequate to accomplish articulation and coordination K-12.

(39) **It is recommended that the existing five year plan be modified to include curricular, instructional and management use of computers.**

The current five year plan focuses on the development and implementation of the Computer Education programs. These goals are near completion. Curricular issues and instructional management are not fully addressed in the plan.

(40) **It is recommended that future expenditure of funds focus on the following areas: software evaluation and acquisition, teacher training, and staffing coordination positions.**

To date, expenditures have focused on the Computer Education program, equipping the labs necessary to accomplish the goals of the program. This program is in place and well equipped. As the focus shifts to curricular utilization, funding priorities also need to be reevaluated.

(41) **It is recommended that funding be provided for the limited purchase of additional computers and printers for use in curricular areas.**

It was observed that some additional hardware will be needed to equip schools equitably for curricular uses.

(42) **It is recommended that a district wide process for the evaluation and acquisition of computer software be created.**

District processes for the evaluation and acquisition of computer software and related instructional materials were not observed. This process should guide site processes and be in concert with district policies and procedures for all instructional material acquisitions. Statements protecting copyright should be included in this process.

(43) **It is recommended that the district develop a policy which supports the concept that student work done on a computer is acceptable.**

Currently some teachers were observed to be unwilling to accept work that had been done on a computer. This sends a negative message to the students regarding word processing and other application use of computers. A survey done at one elementary school showed that out of 211 middle school students polled, 93 owned their own computers. That is 44% of the middle school student body. Last year 24% of the middle school students had their own computers. As the trend toward having these machines at home increases, the schools must recognize that word processing is replacing hand written and typed work.

(44) **It is recommended that an instructional curriculum mapping process be implemented which in one document would list instructional objectives and available computer software, media, other instructional materials and instructional strategies appropriate to achieve desired learner outcomes.**

No district wide coordination of curriculum, instructional strategies and instructional materials was observed.

(45) **It is recommended that a K-12 continuum for computer education be developed and that articulation between the elementary and high school programs be accomplished.**

Currently there are K-8 and high school programs operating separately. The elementary staff would like feedback from the high school so they can upgrade, change, and improve their program.

(46) **It is recommended that district wide strategies for the maintenance of computer hardware be studied.**

A variety of maintenance strategies were observed throughout the district. This resulted in various time lines for the repair of broken equipment. Maintenance strategies should ensure working equipment be in place to provide for the continuity of all computer related programs.

(47) **It is recommended that the district study the feasibility of providing the Computer Resource Teachers a non student period during the teaching day to accomplish the goals of the district and site computer plans.**

District wide, teachers coordinating the computer program have no additional time or compensation provided to accomplish the requirements of the position. Throughout Los Angeles County schools, many structures of computer support staff may be found which provides time or compensation for computer related duties.

APPENDIX A

Classroom Observation Guidelines

Technology Assistance Team
Guidelines for Classroom Observation

School:
Grade Level:
Subject:
Lab ___yes ___no

Equipment: #Computers_____
Apple_____
TRS80_____
Atari_____
Commodore_____
#Printers_____

Other Equipment
_____
_____
_____
_____
_____

Instruction:

1. What subjects are being presented on the microcomputer?

2. To what degree can the teacher explain why the students are doing the given activities on the microcomputer:

   1 - No explanation
   2 - Slight explanation
   3 -
   4 -
   5 - Moderate explanation
   6 -
   7 -
   8 -
   9 -
   10 - Full explanation

3. To what degree can students explain why they are using the microcomputer:

   1 - No explanation
   2 - Slight explanation
   3 -
   4 -
   5 - Moderate explanation
   6 -
   7 -
   8 -
   9 -
   10 - Full explanation

4. To what degree does the teacher feel the microcomputer facilitates meeting learning objectives:

1 - Not related to objectives
2 - Does not help meet learning objectives
3 -
4 -
5 - Moderately helps meet learning objectives
6 -
7 -
8 -
9 -
10 - Fully helps meet learning objectives

Organization:

5. How are students scheduled onto the microcomputer?

6. How is continuity between what occurs at the microcomputer and regular classroom instruction provided?

7. How is program continuity on the microcomputer provided from semester to semester?

8. How is student progress monitored?

Uses:

9. For what instructional purposes is the microcomputer being being used:

___ drill and practice
___ teaching new concepts
___ expanding thinking
___ other (describe)

10. For what management purposes is the microcomputer being used:

___ grade keeping
___ work sheet generation
___ other (describe)
___ test generation
___ curriculum management

11. How is software selected?

11a. What software is used in the class?

Attitudes:

12. What is the attitude of the teacher towards the microcomputer?

13. What is the attitude of students towards the microcomputer?

14. To what degree does the teacher feel the microcomputer helps improve instruction:

1 - Not related to the improvement of instruction
2 - Slightly improves instruction
3 -
4 -
5 - Moderately improves instruction
6 -
7 -
8 -
9 -
10 - Greately improves instruction A-3

Climate:

15. Describe the instructional climate in the classroom.

Commendations:

Other comments, findings, recommendations:

APPENDIX B

Survey Instruments

Beverly Hills Unified School District
Computer Survey

Name_____ School (B.V. E.R. Haw. H.M.) Grade_____

1. I am glad we have computers at school.	No	?	Yes
2. I would like to use computers more in school.	No	?	Yes
3. My parents are glad we use computers in school.	No	?	Yes
4. We have modern computer equipment in our school.	No	?	Yes
5. I can use what I learn about computers when I grow up.	No	?	Yes
6. The computer makes it easier for me to do well in school.	No	?	Yes
7. I enjoy the computer lab.	No	?	Yes
8. Sometimes I get to use the computer in my classroom.	No	?	Yes

9. At school I use the computer for:
   - Writing stories (wordprocessing)_____
   - Math_____
   - Playing learning games_____
   - LOGO_____
   - Drawing pictures_____
   - None of the above_____
   - Other_____

10. My two favorite computer programs at my school are:
    a._____
    b._____

11. I use the computer at home for:
    - Writing (wordprocessing)_____
    - Math_____
    - Games_____
    - Drawing pictures_____
    - None of the above_____
    - Other_____

12. How can we make using computers better for you?

Teacher Use Only	
GATE	RSP
ESL	LI

Beverly Hills Unified School District
Computer Survey

Name_____ Grade_____

1. I value and support the use of computers at the High School.	No	?	Yes
2. I would like to use computers more in school.	No	?	Yes
3. My parents value and support the use of computers in school.	No	?	Yes
4. We have modern computer equipment in our school.	No	?	Yes
5. I can use what I learn about computers in college and adult life.	No	?	Yes
6. The computer is currently a useful tool for me in school.	No	?	Yes
7. I enjoy the computer lab.	No	?	Yes
8. I have had a teacher who has required me to use a computer.	No	?	Yes

9. At school I use the computer for:
   - Wordprocessing_____
   - Math_____
   - Playing learning games_____
   - LOGO_____
   - Graphics_____
   - None of the above_____
   - Other_____

10. My two favorite computer programs at my school are:
    a._____
    b._____

11. I use the computer at home for:
    - Writing (wordprocessing)_____
    - Math_____
    - Games_____
    - Graphics_____
    - None of the above_____
    - Other_____

12. How can we make using computers better for you?

Teacher Use Only	
GATE	RSP
ESL	LI

Beverly Hills Unified School District
Computer Survey

School_____ Subject/Grade_____ Name (Optional)_____

	Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
1. I value and support the use of microcomputers in the school district.	1	2	3	4	5
2. The community values and supports the school's computer program.	1	2	3	4	5
3. I am aware of the program and curriculum developed by the District Computer Committee.	1	2	3	4	5
4. The school district attempts to improve its technology.	1	2	3	4	5
5. The district's computer program prepares the student for a future in a technological society.	1	2	3	4	5
6. The use of computers has improved the instructional program of this school district.	1	2	3	4	5
7. I am aware that outside funds are available for computers and software.	1	2	3	4	5
8. The computer is a valuable tool in my teaching area.	1	2	3	4	5
9. I feel the elementary school labs are important to our district computer program.	1	2	3	4	5
10. It is valuable to have a computer resource teacher at each site.	1	2	3	4	5

11. I have been provided with the following in order to implement the computer program:
    - Hardware _____
    - Software _____
    - Training _____
    - Prompt repairs _____
    - Other_____
    - None of the Above _____

12. I have been able to benefit from the computer in the following ways:
    - Attendance _____
    - Gradebook _____
    - Wordprocessing (test makers, worksheets, etc.) _____
    - Teaching subject material _____
    - Managing student records _____
    - Other _____
    - None of the Above _____

13. If you use the computer for instruction, how are you using it?

Drill and Practice _____
Individualized teaching _____
Simulations _____
Wordprocessing _____
LOGO _____
Enrichment _____
Remediation _____
Other_____
None of the Above_____

14. If you use a computer at home, how are you using it?

15. List two concerns you have regarding computers in your teaching area.

Beverly Hills Unified School District
Computer Survey

School_____ Grade levels of Children_____ Name _____

	Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
1. I value and support the use of microcomputers in the school district.	1	2	3	4	5
2. The community values and supports the school's computer program.	1	2	3	4	5
3. I am aware of the program and curriculum developed by the District Computer Committee.	1	2	3	4	5
4. The school district attempts to improve its technology.	1	2	3	4	5
5. The district's computer program prepares the student for a future in a technological society.	1	2	3	4	5
6. The use of computers has improved the instructional program of this school district.	1	2	3	4	5
7. I am aware that outside funds are available for computers and software.	1	2	3	4	5
8. The computer is a valuable tool in my business.	1	2	3	4	5
9. I feel the elementary school labs are important to our district computer program.	1	2	3	4	5
10. It is valuable to have a computer resource teacher at each school.	1	2	3	4	5

11. If your children use a computer at home, how are they using it?

Drill and Practice _____
Individualized teaching _____
Simulations _____
Wordprocessing _____
LOGO _____
Enrichment _____
Remediation _____
Other_____
None of the Above_____

12. If you use a computer at home, how are you using it?

13. List two concerns you have regarding computers in our schools.

Beverly Hills Unified School District Boards Technology Survey

Below are 20 questions. Please circle your response on the scale for the item.

Response scale:
1 - Strongly Disagree
2 - Disagree
3 - No Opinion - Not Applicable
4 - Agree
5 - Strongly Agree

		Circle response
1.	This school district adequately plans for the future.	1 2 3 4 5
2.	This school district "pulls the plug" on failing ventures.	1 2 3 4 5
3.	This school district engages effectively in "futuring".	1 2 3 4 5
4.	This school district attempts to improve its technology.	1 2 3 4 5
5.	This school district bases its use of technology on curricular issues.	1 2 3 4 5
6.	This school district plans for the use of computers.	1 2 3 4 5
7.	This school district received outside funding to support the computer programs.	1 2 3 4 5
8.	This school district has a philosophy about the instructional use of technology.	1 2 3 4 5
9.	Teachers in this school district benefit from the computer programs.	1 2 3 4 5
10.	Administrators in this school district benefit from the computer programs.	1 2 3 4 5
11.	The use of computers has improved the instructional programs of this school district.	1 2 3 4 5
12.	Staff is provided training to implement the school district computer programs.	1 2 3 4 5
13.	Staff is provided resources needed to implement the school district computer programs.	1 2 3 4 5
14.	The community has provided support for the computer programs.	1 2 3 4 5
15.	The community has been involved with computer programs.	1 2 3 4 5

Beverly Hills Unified School District Boards Technology Survey

Response scale:
1 - Strongly Disagree
2 - Disagree
3 - No Opinion - Not Applicable
4 - Agree
5 - Strongly Agree

		Circle response
16.	The community values the use of technology in the school district.	1 2 3 4 5
17.	I value and support the use of microcomputer technology in the school district.	1 2 3 4 5
18.	The school district's computer programs prepare the student for a future in a technological society.	1 2 3 4 5
19.	I feel the elementary school labs are important to our school district's computer programs.	1 2 3 4 5
20.	It is valuable to have a computer resource teacher at each site.	1 2 3 4 5

Please respond to the following in the space provide.

21. If you use a computer, how are you using it?

22. What concerns do you have regarding the school district's computer programs:

Please check the appropriate group:
Board of Education ___ Foundation Board ___

Please use the back of this forms for any additional comments.

APPENDIX C

Survey Data for all Groups and Questions

Questionnaire Item 1. "I am glad we have computers at school."
(Grades 1, 3, 5, and 7)

Grade	School	n	Response Percentage (%) No	?	Yes
1	Beverly Vista	21	0	5	95
	El Rodeo	23	4	4	91
	Hawthorne	23	0	4	96
	Horace Mann	22	5	0	95
	Total	89	2	3	94
3	Beverly Vista	16	0	0	100
	El Rodeo	23	0	0	100
	Hawthorne	19	0	0	100
	Horace Mann	23	0	0	100
	Total	81	0	0	100
5	Beverly Vista	21	0	0	100
	El Rodeo	27	0	7	93
	Hawthorne	24	0	8	92
	Horace Mann	23	0	0	100
	Total	95	0	4	96
7	Beverly Vista	17	0	6	94
	El Rodeo	16	6	0	94
	Hawthorne	24	0	4	96
	Horace Mann	22	0	0	100
	Total	79	1	3	96

Questionnaire Item 1. "I value and support the use of computers at the High School."
(Grades 9, 10, 11, and 12)

Grade	n	Response Percentage (%) No	?	Yes
9	45	11	16	73
10	40	13	20	68
11	54	11	13	76
12	55	13	13	75
Total	194	12	15	73

Questionnaire Item 1. "I value and support the use of microcomputers in the school district."
(Teachers)

School	n	Response Percentage (%) Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Beverly Vista	28	0	7	4	25	64
El Rodeo	34	0	0	3	26	71
Hawthorne	18	0	0	17	22	61
Horace Mann	30	3	0	0	37	60
Total	110	1	2	5	28	65
Beverly Hills High	111	0	2	12	46	41

Questionnaire Item 1. "I value and support the use of microcomputers in the school district."
(Parents)

School	n	Response Percentage (%) Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Beverly Vista	43	0	2	2	19	77
El Rodeo	48	0	0	2	27	71
Hawthorne	61	2	3	3	23	69
Horace Mann	73	0	0	1	29	70
Total	225	0	1	2	25	71
Beverly Hills High	87	0	1	7	39	53

Questionnaire Item 3. "My parents are glad we use computers in school." (Grades 1, 3, 5, and 7)

Grade	School	n	Response Percentage (%) No	?	Yes
1	Beverly Vista	21	0	43	57
	El Rodeo	23	4	22	74
	Hawthorne	23	4	22	74
	Horace Mann	22	0	9	91
	Total	89	2	22	74
3	Beverly Vista	16	0	13	88
	El Rodeo	23	0	26	74
	Hawthorne	19	0	42	58
	Horace Mann	23	0	35	65
	Total	81	0	30	70
5	Beverly Vista	21	0	33	67
	El Rodeo	27	0	26	74
	Hawthorne	24	0	58	42
	Horace Mann	23	0	13	87
	Total	95	0	33	67
7	Beverly Vista	17	0	18	82
	El Rodeo	16	0	25	75
	Hawthorne	24	0	29	71
	Horace Mann	22	0	14	86
	Total	79	0	22	78

Questionnaire Item 3. "My parents value and support the use of computers in school." (Grades 9, 10, 11, and 12)

Grade	n	Response Percentage (%) No	?	Yes
9	45	2	47	51
10	40	10	38	53
11	54	9	41	50
12	55	9	25	65
Total	194	8	37	55

Questionnaire Item 2. "The community values and supports the school's computer program." (Teachers)

School	n	Response Percentage (%) Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Beverly Vista	28	4	11	18	36	32
El Rodeo	34	0	0	18	32	50
Hawthorne	18	0	0	22	50	28
Horace Mann	30	3	3	13	33	47
Total	110	2	4	17	36	41
Beverly Hills High	111	0	3	32	41	24

Questionnaire Item 2. "The community values and supports the school's computer program." (Parents)

School	n	Response Percentage (%) Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Beverly Vista	43	0	2	12	40	47
El Rodeo	48	0	0	8	35	56
Hawthorne	61	0	2	20	39	39
Horace Mann	73	0	0	27	34	38
Total	225	0	1	18	37	44
Beverly Hills High	87	0	0	28	48	24

Questionnaire Item 4. "We have modern computer equipment in our school." (Grades 1, 3, 5, and 7)

Grade	School	n	Response Percentage (%) No	?	Yes
1	Beverly Vista	21	29	43	29
	El Rodeo	23	0	17	83
	Hawthorne	23	0	4	96
	Horace Mann	22	0	0	100
	Total	89	7	16	78
3	Beverly Vista	16	0	0	100
	El Rodeo	23	4	22	74
	Hawthorne	19	0	16	84
	Horace Mann	23	0	4	96
	Total	81	1	11	88
5	Beverly Vista	21	0	33	67
	El Rodeo	27	19	19	63
	Hawthorne	24	17	29	63
	Horace Mann	23	0	35	65
	Total	95	9	28	62
7	Beverly Vista	17	6	6	88
	El Rodeo	16	0	6	94
	Hawthorne	24	4	29	67
	Horace Mann	22	18	23	59
	Total	79	8	16	49

Questionnaire Item 4. "We have modern computer equipment in our school." (Grades 9, 10, 11, and 12)

Grade	n	Response Percentage (%) No	?	Yes
9	45	7	31	62
10	40	3	20	78
11	54	2	20	78
12	55	0	16	84
Total	194	3	22	76

Questionnaire Item 4. "The school district attempts to improve its technology." (Teachers)

School	n	Response Percentage (%) Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Beverly Vista	28	0	11	14	54	21
El Rodeo	34	3	0	15	35	47
Hawthorne	18	0	6	22	56	17
Horace Mann	30	0	0	13	53	33
Total	110	1	4	15	48	32
Beverly Hills High	111	0	5	16	49	31

Questionnaire Item 4. "The school district attempts to improve its technology." (Parents)

School	n	Response Percentage (%) Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Beverly Vista	43	0	2	16	56	26
El Rodeo	48	0	0	40	27	33
Hawthorne	61	0	2	20	51	28
Horace Mann	73	0	5	26	34	34
Total	225	0	3	25	41	31
Beverly Hills High	87	0	2	25	48	24

Questionnaire Item 5. "I can use what I learn about computers when I grow up." (Grades 1, 3, 5, and 7)

Grade	School	n	Response Percentage (%) No	?	Yes
1	Beverly Vista	21	5	19	76
	El Rodeo	23	13	26	61
	Hawthorne	23	9	13	78
	Horace Mann	22	0	0	100
	Total	89	7	15	79
3	Beverly Vista	16	0	0	100
	El Rodeo	23	0	35	65
	Hawthorne	19	0	0	100
	Horace Mann	23	9	4	87
	Total	81	2	11	86
5	Beverly Vista	21	5	5	90
	El Rodeo	27	22	7	70
	Hawthorne	24	25	13	63
	Horace Mann	23	0	22	78
	Total	95	14	12	75
7	Beverly Vista	17	29	12	59
	El Rodeo	16	6	6	88
	Hawthorne	24	0	29	71
	Horace Mann	22	9	32	59
	Total	79	10	22	68

Questionnaire Item 5. "I can use what I learn about computers in college and adult life." (Grades 9, 10, 11, and 12)

Grade	n	Response Percentage (%) No	?	Yes
9	45	4	20	76
10	40	3	20	78
11	54	13	28	59
12	55	16	11	73
Total	194	10	20	71

Questionnaire Item 5. "The district's computer program prepares the student for a future in a technological society." (Teachers)

School	n	Response Percentage (%) Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Beverly Vista	28	4	7	14	50	25
El Rodeo	34	0	6	9	35	50
Hawthorne	18	0	11	22	39	28
Horace Mann	30	0	0	7	70	23
Total	110	1	5	12	49	33
Beverly Hills High	111	0	10	23	53	14

Questionnaire Item 5. "The district's computer program prepares the student for a future in a technological society." (Parents)

School	n	Response Percentage (%) Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Beverly Vista	43	0	11	16	37	35
El Rodeo	48	0	0	10	44	46
Hawthorne	61	2	2	10	46	41
Horace Mann	73	0	4	14	34	48
Total	225	0	4	12	40	43
Beverly Hills High	87	0	5	20	46	30

Questionnaire Item 6. "The computer makes it easier for me to do well in school." (Grades 1, 3, 5, and 7)

Grade	School	n	Response Percentage (%) No	?	Yes
1	Beverly Vista	21	10	14	76
	El Rodeo	23	9	17	74
	Hawthorne	23	0	13	87
	Horace Mann	22	9	0	91
	Total	89	7	11	82
3	Beverly Vista	16	6	0	94
	El Rodeo	23	0	13	87
	Hawthorne	19	37	0	63
	Horace Mann	23	13	9	78
	Total	81	14	6	80
5	Beverly Vista	21	33	14	52
	El Rodeo	27	44	19	37
	Hawthorne	24	42	25	33
	Horace Mann	23	22	35	43
	Total	95	36	23	41
7	Beverly Vista	17	29	6	65
	El Rodeo	16	50	19	31
	Hawthorne	24	50	17	33
	Horace Mann	22	77	14	9
	Total	79	53	14	33

Questionnaire Item 6. "The computer is currently a useful tool for me in school." (Grades 9, 10, 11, and 12)

Grade	n	Response Percentage (%) No	?	Yes
9	45	60	22	18
10	40	53	20	28
11	54	81	0	19
12	55	67	13	20
Total	194	66	13	21

Questionnaire Item 6. "The use of computers has improved the instructional program of this school district." (Teachers)

School	n	Response Percentage (%) Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Beverly Vista	28	4	18	21	43	14
El Rodeo	34	0	9	18	41	32
Hawthorne	18	6	11	33	44	6
Horace Mann	20	0	3	27	37	33
Total	110	2	10	24	41	24
Beverly Hills High	111	3	9	37	42	9

Questionnaire Item 6. "The use of computers has improved the instructional program of this school district." (Parents)

School	n	Response Percentage (%) Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Beverly Vista	43	5	2	23	47	23
El Rodeo	48	0	0	31	42	27
Hawthorne	61	0	7	23	44	26
Horace Mann	73	0	3	21	41	36
Total	225	1	3	24	43	29
Beverly Hills High	87	0	6	29	51	15

Questionnaire Item 7. "I enjoy the computer lab."
(Grades 1, 3, 5, and 7)

Grade	School	n	Response Percentage (%) No	?	Yes
1	Beverly Vista	21	5	5	90
	El Rodeo	23	9	17	74
	Hawthorne	23	0	13	87
	Horace Mann	22	9	0	91
	Total	89	6	9	85
3	Beverly Vista	16	0	0	100
	El Rodeo	23	0	13	87
	Hawthorne	19	37	0	63
	Horace Mann	23	13	9	78
	Total	81	12	6	81
5	Beverly Vista	21	0	0	100
	El Rodeo	27	44	19	37
	Hawthorne	24	42	25	33
	Horace Mann	23	22	35	43
	Total	95	28	20	52
7	Beverly Vista	17	6	6	88
	El Rodeo	16	50	19	31
	Hawthorne	24	50	17	33
	Horace Mann	22	77	14	9
	Total	79	48	14	38

Questionnaire Item 7. "I enjoy the computer lab."
(Grades 9, 10, 11, and 12)

Grade	n	Response Percentage (%) No	?	Yes
9	45	60	22	18
10	40	33	55	13
11	54	37	44	19
12	55	56	36	7
Total	194	47	39	14

Questionnaire Item 9. "I feel the elementary school labs are important to our district computer program."
(Teachers)

School	n	Response Percentage (%) Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Beverly Vista	28	11	14	25	32	18
El Rodeo	34	0	3	32	21	44
Hawthorne	18	6	11	33	44	6
Horace Mann	30	0	3	27	37	33
Total	110	4	7	29	32	28
Beverly Hills High	111	3	9	37	42	9

Questionnaire Item 9. "I feel the elementary school labs are important to our district computer program."
(Parents)

School	n	Response Percentage (%) Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Beverly Vista	43	5	9	37	30	19
El Rodeo	48	4	2	54	27	13
Hawthorne	61	2	7	57	26	8
Horace Mann	73	0	3	21	41	35
Total	225	2	5	41	32	21
Beverly Hills High	87	0	2	32	51	15

Questionnaire Item 2. "I would like to use computers more in school."
(Grades 1, 3, 5, and 7)

Grade	School	n	Response Percentage (%) No	?	Yes
1	Beverly Vista	21	14	10	76
	El Rodeo	23	13	13	74
	Hawthorne	23	22	17	61
	Horace Mann	22	0	0	100
	Total	89	12	10	78
3	Beverly Vista	16	0	0	100
	El Rodeo	23	0	9	91
	Hawthorne	19	0	0	100
	Horace Mann	23	0	4	96
	Total	81	0	4	96
5	Beverly Vista	21	0	0	100
	El Rodeo	27	4	19	78
	Hawthorne	24	13	17	71
	Horace Mann	23	0	4	96
	Total	95	4	11	85
7	Beverly Vista	17	0	6	94
	El Rodeo	16	19	0	81
	Hawthorne	24	17	4	79
	Horace Mann	22	0	0	100
	Total	79	9	3	89

Questionnaire Item 2. "I would like to use computers more in school."
(Grades 9, 10, 11, and 12)

Grade	n	Response Percentage (%) No	?	Yes
9	45	22	24	53
10	40	28	15	58
11	54	30	13	57
12	55	27	24	49
Total	194	27	19	54

Questionnaire Item 9. "At school I use the computer for: ..." (Grades 1, 3, 5, and 7)

Grade	School	n	Responses: Writing Stories (Word Processing)	Math	Playing Learning Games	Logo	Drawing Pictures	None of the Above
1	Beverly Vista	21	81	43	62	90	81	5
	El Rodeo	23	100	87	100	91	48	0
	Hawthorne	23	4	39	65	0	26	26
	Horace Mann	22	50	45	95	32	73	0
	Total	89	58	54	81	53	56	8
3	Beverly Vista	16	69	0	69	94	94	0
	El Rodeo	23	100	83	96	100	91	0
	Hawthorne	19	95	74	95	47	58	0
	Horace Mann	23	22	26	35	87	35	0
	Total	81	70	48	73	83	68	0
5	Beverly Vista	21	76	0	67	76	38	10
	El Rodeo	27	89	41	89	85	59	0
	Hawthorne	24	54	13	71	46	42	13
	Horace Mann	23	57	13	87	39	61	0
	Total	95	69	18	79	62	51	5
7	Beverly Vista	17	47	18	47	29	12	24
	El Rodeo	16	75	38	88	31	38	0
	Hawthorne	24	79	21	50	29	33	0
	Horace Mann	22	100	0	45	14	5	0
	Total	79	77	18	56	25	22	5

Questionnaire Item 9. "At school I use the computer for: ..." (Grades 9, 10, 11, and 12)

Grade	n	Responses: Word Processing	Math	Playing Learning Games	Logo	Graphics	None of the Above
9	45	7	4	4	2	9	87
10	40	30	3	13	8	10	65
11	54	20	7	9		13	72
12	55	16	4	15	2	9	75
Total	194	18	5	10	3	10	75

Questionnaire Item 8. "Sometimes I get to use the computer in my classroom." (Grades 1, 3, 5, and 7)

Grade	School	n	Response Percentage (%)		
			No	?	Yes
1	Beverly Vista	21	24	14	62
	El Rodeo	23	4	0	26
	Hawthorne	23	78	22	0
	Horace Mann	22	5	0	95
	Total	89	28	9	63
3	Beverly Vista	16	100	0	0
	El Rodeo	23	4	0	96
	Hawthorne	19	5	0	95
	Horace Mann	23	17	13	70
	Total	81	27	4	69
5	Beverly Vista	21	100	0	0
	El Rodeo	27	7	0	93
	Hawthorne	24	21	0	79
	Horace Mann	25	28	8	56
	Total	95	37	2	61
7	Beverly Vista	17	76	0	24
	El Rodeo	16	69	19	13
	Hawthorne	24	54	4	42
	Horace Mann	22	91	9	0
	Total	79	72	8	20

Questionnaire Item 8. "I have had a teacher who has required me to use a computer." (Grades 9, 10, 11, and 12)

Grade	n	Response Percentage (%)		
		No	?	Yes
9	45	84	4	11
10	40	70	5	25
11	54	76	0	24
12	55	64	0	36
Total	194	73	2	25

Questionnaire Item 11. "I use the computer at home for: ..." (Grades 1, 3, 5, and 7)

Grade	School	n	Responses: Writing Stories (Word Processing)	Math	Playing Learning Games	Logo	Drawing Pictures	None of the Above
1	Beverly Vista	21	19	14	52	0	24	43
	El Rodeo	23	61	52	61	0	43	0
	Hawthorne	23	0	0	26	0	9	26
	Horace Mann	22	18	9	23	0	5	10
	Total	89	25	19	40	0	20	35
3	Beverly Vista	16	50	50	75	0	69	25
	El Rodeo	23	39	57	83	0	48	17
	Hawthorne	19	37	37	47	0	42	53
	Horace Mann	23	30	17	26	0	13	57
	Total	81	38	40	57	0	41	38
5	Beverly Vista	21	38	19	33	0	24	48
	El Rodeo	27	56	52	67	0	56	30
	Hawthorne	24	33	29	63	0	29	29
	Horace Mann	25	32	24	60	0	40	32
	Total	95	41	33	58	0	39	35
7	Beverly Vista	17	47	35	53	0	41	35
	El Rodeo	16	69	31	81	0	44	13
	Hawthorne	24	46	21	63	0	33	38
	Horace Mann	22	27	9	68	0	45	27
	Total	79	46	23	66	0	41	29

Questionnaire Item 11. "I use the computer at home for: ..." (Grades 9, 10, 11, and 12)

Grade	n	Responses: Word Processing	Math	Playing Learning Games	Logo	Graphics	None of the Above
9	45	29	7	38	0	27	57
10	40	30	15	45	0	23	45
11	54	35	4	24	0	15	61
12	55	31	4	22	0	9	60
Total	194	31	7	31	0	18	56

Questionnaire Item 8. "The computer is a valuable tool in my teaching area." (Teachers)

School	n	Response Percentage (%) Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Beverly Vista	28	7	14	14	39	25
El Rodeo	34	3	3	15	50	29
Hawthorne	18	11	17	17	44	11
Horace Mann	30	7	10	23	30	30
Total	110	6	10	17	41	25
Beverly Hills High	111	4	14	26	33	23

Questionnaire Item 8. "The computer is a valuable tool in my business." (Parents)

School	n	Response Percentage (%) Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Beverly Vista	43	2	2	9	37	49
El Rodeo	48	0	6	40	25	50
Hawthorne	61	2	8	34	23	33
Horace Mann	73	3	8	22	19	48
Total	225	2	7	22	25	44
Beverly Hills High	87	5	8	22	28	35

Questionnaire Item 10. "It is valuable to have a computer resource teacher at each site." (Teachers)

School	n	Response Percentage (%) Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Beverly Vista	28	4	4	4	25	64
El Rodeo	34	0	0	6	15	79
Hawthorne	18	6	17	11	22	44
Horace Mann	30	3	0	0	27	70
Total	110	3	4	5	22	67
Beverly Hills High	111	2	7	17	42	32

Questionnaire Item 10. "It is valuable to have a computer resource teacher at each school. " (Parents)

School	n	Response Percentage (%) Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Beverly Vista	43	2	2	21	0	74
El Rodeo	48	0	0	2	21	77
Hawthorne	61	2	0	7	30	62
Horace Mann	73	1	0	4	29	66
Total	225	1	0	8	22	69
Beverly Hills High	87	1	3	14	37	45

Questionnaire Item 11. "I have been provided with the following in order to implement the computer program: ..."
(Teachers)

School	n	Responses				
		Hardware	Software	Training	Prompt repairs	None of the Above
Beverly Vista	28	46	32	36	7	36
El Rodeo	34	47	53	65	29	32
Hawthorne	18	44	39	50	11	44
Horace Mann	30	60	53	63	30	20
Total	110	50	45	55	21	32
Beverly Hills High	111	41	42	29	3	41

Questionnaire Item 12. "I have been able to benefit from the computer in the following ways: ..."
(Teachers)

School	n	Responses					
		Attend-ance	Grade book	Wordprocessing (test makers, worksheets, etc.)	Teaching subject material	Managing student records	None of the Above
Beverly Vista	28	7	11	29	36	14	50
El Rodeo	34	3	3	24	47	12	29
Hawthorne	18	6	11	28	22	0	50
Horace Mann	30	0	3	30	50	3	43
Total	110	4	6	27	41	8	42
Beverly Hills High	111	25	16	32	26	8	36

Questionnaire Item 3. "I am aware of the program and curriculum developed by the District Computer Committee."
(Teachers)

School	n	Response Percentage (%)				
		Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Beverly Vista	28	4	14	7	61	14
El Rodeo	34	0	3	18	38	41
Hawthorne	18	0	28	39	33	0
Horace Mann	30	0	7	17	47	30
Total	110	1	11	18	45	25
Beverly Hills High	111	11	14	27	40	9

Questionnaire Item 3. "I am aware of the program and curriculum developed by the District Computer Committee."
(Parents)

School	n	Response Percentage (%)				
		Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Beverly Vista	43	2	19	26	37	16
El Rodeo	48	2	10	35	29	23
Hawthorne	61	2	15	54	28	13
Horace Mann	73	0	12	38	34	15
Total	225	1	14	36	32	16
Beverly Hills High	87	11	6	37	39	7

Questionnaire Item 7. "I am aware that outside funds are available for computers and software."
(Teachers)

School	n	Response Percentage (%)				
		Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Beverly Vista	28	11	14	25	32	18
El Rodeo	34	0	3	32	21	44
Hawthorne	18	6	28	28	33	6
Horace Mann	30	0	7	37	43	13
Total	110	4	11	31	31	24
Beverly Hills High	111	4	9	32	42	14

Questionnaire Item 7. "I am aware that outside funds are available for computers and software."
(Parents)

School	n	Response Percentage (%)				
		Strongly Disagree	Disagree	No Opinion Not Applicable	Agree	Strongly Agree
Beverly Vista	43	5	9	37	33	16
El Rodeo	48	4	2	54	27	13
Hawthorne	61	2	7	57	26	8
Horace Mann	73	4	7	53	19	14
Total	225	4	6	52	24	14
Beverly Hills High	87	2	11	53	21	13

Questionnaire Item 11. "If your children use a computer at home, how are they using it?" (Parents)

School	n	Responses							
		Drill and Practice	Individualized Teaching	Simulations	Wordprocessing	Logo	Enrichment	Remediation	None of the Above
Beverly Vista	43	26	14	14	28	19	19	2	5
El Rodeo	48	35	23	10	31	8	21	4	13
Hawthorne	61	26	21	15	34	16	20	8	23
Horace Mann	73	16	15	8	16	11	18	5	15
Total	225	25	18	12	27	13	19	5	15
Beverly Hills High	87	8	6	3	23	1	2	1	45

Questionnaire Item 13. "If you use the computer for instruction, how are you using it?" (Teachers)

School	n	Responses							
		Drill and Practice	Individualized Teaching	Simulations	Wordprocessing	Logo	Enrichment	Remediation	None of the Above
Beverly Vista	28	21	25	4	7	7	25	11	61
El Rodeo	34	47	24	0	21	15	29	29	50
Hawthorne	18	39	28	6	33	0	22	22	50
Horace Mann	30	40	27	10	13	17	43	27	43
Total	110	37	25	5	17	11	31	23	51
Beverly Hills High	111	11	12	8	19	0	12	10	65

Beverly Hills Unified School District Board Technology Survey

1 = Strongly Disagree 2 = Disagree
3 = No Opinion - Not Applicable 4 = Agree 5 = Strongly Agree

1. This school district adequately plans for the future.

Response	Freq	Percent	Cum Freq	Cum Pct
1	1	16.67	1	16.67
2	1	16.67	2	33.33
3	1	16.67	3	50.00
4	2	33.33	5	83.33
5	1	16.67	6	100.00
N =	6	Total cases =	6	

Response	Freq	....10...20...30...40...50...60...70...80...90....
1	1	*********
2	1	*********
3	1	*********
4	2	******************
5	1	*********

Mean = 3.17 Standard Deviation = 1.47 No Responses = 0

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2. This school district "pulls the plug" on failing ventures.

Response	Freq	Percent	Cum Freq	Cum Pct
1	0	0.00	0	0.00
2	1	16.67	1	16.67
3	2	33.33	3	50.00
4	3	50.00	6	100.00
5	0	0.00	6	100.00
N =	6	Total cases =	6	

Response	Freq	....10...20...30...40...50...60...70...80...90....
1	0	
2	1	*********
3	2	******************
4	3	**************************
5	0	

Mean = 3.33 Standard Deviation = 0.82 No Responses = 0

Beverly Hills Unified School District Board Technology Survey

1 = Strongly Disagree 2 = Disagree
3 = No Opinion - Not Applicable 4 = Agree 5 = Strongly Agree

3. This school district engages effectively in "futuring".

Response	Freq	Percent	Cum Freq	Cum Pct
1	0	0.00	0	0.00
2	1	16.67	1	16.67
3	3	50.00	4	66.67
4	1	16.67	5	83.33
5	1	16.67	6	100.00
N =	6	Total cases =	6	

Response	Freq	....10...20...30...40...50...60...70...80...90....
1	0	
2	1	*********
3	3	**************************
4	1	*********
5	1	*********

Mean = 3.33 Standard Deviation = 1.03 No Responses = 0

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4. This school district attempts to improve its technology.

Response	Freq	Percent	Cum Freq	Cum Pct
1	1	16.67	1	16.67
2	0	0.00	1	16.67
3	0	0.00	1	16.67
4	4	66.67	5	83.33
5	1	16.67	6	100.00
N =	6	Total cases =	6	

Response	Freq	....10...20...30...40...50...60...70...80...90....
1	1	*********
2	0	
3	0	
4	4	**********************************
5	1	*********

Mean = 3.67 Standard Deviation = 1.37 No Responses = 0

Beverly Hills Unified School District Board Technology Survey

1 = Strongly Disagree 2 = Disagree
3 = No Opinion - Not Applicable 4 = Agree 5 = Strongly Agree

5. This school district bases its use of technology on curricular issues.

Response	Freq	Percent	Cum Freq	Cum Pct
1	0	0.00	0	0.00
2	0	0.00	0	0.00
3	2	33.33	2	33.33
4	4	66.67	6	100.00
5	0	0.00	6	100.00

N = 6 Total cases = 6

Response	Freq	....10...20...30...40...50...60...70...80...90....
1	0	
2	0	
3	2	**********
4	4	**********
5	0	

Mean = 3.67 Standard Deviation = 0.52 No Responses = 0

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6. This school district plans for the use of computers.

Response	Freq	Percent	Cum Freq	Cum Pct
1	1	16.67	1	16.67
2	0	0.00	1	16.67
3	0	0.00	1	16.67
4	2	33.33	3	50.00
5	3	50.00	6	100.00

N = 6 Total cases = 6

Response	Freq	....10...20...30...40...50...60...70...80...90....
1	1	**********
2	0	
3	0	
4	2	**********
5	3	**********

Mean = 4.00 Standard Deviation = 1.55 No Responses = 0

Beverly Hills Unified School District Board Technology Survey

1 = Strongly Disagree 2 = Disagree
3 = No Opinion - Not Applicable 4 = Agree 5 = Strongly Agree

7. This school district received outside funding to support the computer programs.

Response	Freq	Percent	Cum Freq	Cum Pct
1	1	20.00	1	20.00
2	0	0.00	1	20.00
3	1	20.00	2	40.00
4	1	20.00	3	60.00
5	2	40.00	5	100.00
N =	5	Total cases =	6	

Response	Freq	....10...20...30...40...50...60...70...80...90....
1	1	**********
2	0	
3	1	**********
4	1	**********
5	2	**********

Mean = 3.60 Standard Deviation = 1.67 No Responses = 0

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8. This school district has a philosophy about the instructional use of technology.

Response	Freq	Percent	Cum Freq	Cum Pct
1	0	0.00	0	0.00
2	1	16.67	1	16.67
3	1	16.67	2	33.33
4	2	33.33	4	66.67
5	2	33.33	6	100.00
N =	6	Total cases =	6	

Response	Freq	....10...20...30...40...50...60...70...80...90....
1	0	
2	1	*********
3	1	*********
4	2	**********
5	2	**********

Mean = 3.83 Standard Deviation = 1.17 No Responses = 0

Beverly Hills Unified School District Board Technology Survey

1 = Strongly Disagree 2 = Disagree
3 = No Opinion - Not Applicable 4 = Agree 5 = Strongly Agree

9. Teachers in this school district benefit from the computer programs.

Response	Freq	Percent	Cum Freq	Cum Pct
1	0	0.00	0	0.00
2	1	16.67	1	16.67
3	0	0.00	1	16.67
4	1	16.67	2	33.33
5	4	66.67	6	100.00
N =	6	Total cases =	6	

Response	Freq	....10...20...30...40...50...60...70...80...90....
1	0	
2	1	*********
3	0	
4	1	*********
5	4	************************************

Mean = 4.33 Standard Deviation = 1.21 No Responses = 0

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10. Administrators in this school district benefit from the computer programs.

Response	Freq	Percent	Cum Freq	Cum Pct
1	0	0.00	0	0.00
2	1	16.67	1	16.67
3	0	0.00	1	16.67
4	2	33.33	3	50.00
5	3	50.00	6	100.00
N =	6	Total cases =	6	

Response	Freq	....10...20...30...40...50...60...70...80...90....
1	0	
2	1	*********
3	0	
4	2	******************
5	3	***************************

Mean = 4.17 Standard Deviation = 1.17 No Responses = 0

Beverly Hills Unified School District Board Technology Survey

1 = Strongly Disagree 2 = Disagree
3 = No Opinion - Not Applicable 4 = Agree 5 = Strongly Agree

11. The use of computers has improved the instructional programs of this school district.

Response	Freq	Percent	Cum Freq	Cum Pct
1	0	0.00	0	0.00
2	1	16.67	1	16.67
3	1	16.67	2	33.33
4	3	50.00	5	83.33
5	1	16.67	6	100.00
N =	6	Total cases =	6	

Response	Freq	....10...20...30...40...50...60...70...80...90....
1	0	
2	1	*********
3	1	*********
4	3	**************************
5	1	*********

Mean = 3.67 Standard Deviation = 1.03 No Responses = 0

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12. Staff is provided training to implement the school district computer programs.

Response	Freq	Percent	Cum Freq	Cum Pct
1	1	16.67	1	16.67
2	0	0.00	1	16.67
3	3	50.00	4	66.67
4	1	16.67	5	83.33
5	1	16.67	6	100.00
N =	6	Total cases =	6	

Response	Freq	....10...20...30...40...50...60...70...80...90....
1	1	*********
2	0	
3	3	**************************
4	1	*********
5	1	*********

Mean = 3.17 Standard Deviation = 1.33 No Responses = 0

Beverly Hills Unified School District Board Technology Survey

1 = Strongly Disagree 2 = Disagree
3 = No Opinion - Not Applicable 4 = Agree 5 = Strongly Agree

13. Staff is provided resources needed to implement the school district computer programs.

Response	Freq	Percent	Cum Freq	Cum Pct
1	0	0.00	0	0.00
2	1	16.67	1	16.67
3	2	33.33	3	50.00
4	2	33.33	5	83.33
5	1	16.67	6	100.00
N =	6	Total cases =	6	

Response	Freq	....10...20...30...40...50...60...70...80...90....
1	0	
2	1	*********
3	2	**********
4	2	**********
5	1	*********

Mean = 3.50 Standard Deviation = 1.05 No Responses = 0

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14. The community has provided support for the computer programs.

Response	Freq	Percent	Cum Freq	Cum Pct
1	0	0.00	0	0.00
2	2	33.33	2	33.33
3	1	16.67	3	50.00
4	1	16.67	4	66.67
5	2	33.33	6	100.00
N =	6	Total cases =	6	

Response	Freq	....10...20...30...40...50...60...70...80...90....
1	0	
2	2	**********
3	1	*********
4	1	*********
5	2	**********

Mean = 3.50 Standard Deviation = 1.38 No Responses = 0

Beverly Hills Unified School District Board Technology Survey

1 = Strongly Disagree 2 = Disagree
3 = No Opinion - Not Applicable 4 = Agree 5 = Strongly Agree

15. The community has been involved with computer programs.

Response	Freq	Percent	Cum Freq	Cum Pct
1	0	0.00	0	0.00
2	2	33.33	2	33.33
3	2	33.33	4	66.67
4	2	33.33	6	100.00
5	0	0.00	6	100.00

N = 6 Total cases = 6

Response	Freq	....10...20...30...40...50...60...70...80...90....
1	0	
2	2	**********
3	2	**********
4	2	**********
5	0	

Mean = 3.00 Standard Deviation = 0.89 No Responses = 0

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16. The community values the use of technology in the school district.

Response	Freq	Percent	Cum Freq	Cum Pct
1	0	0.00	0	0.00
2	1	16.67	1	16.67
3	0	0.00	1	16.67
4	3	50.00	4	66.67
5	2	33.33	6	100.00

N = 6 Total cases = 6

Response	Freq	....10...20...30...40...50...60...70...80...90....
1	0	
2	1	*****
3	0	
4	3	**********
5	2	**********

Mean = 4.00 Standard Deviation = 1.10 No Responses = 0

Beverly Hills Unified School District Board Technology Survey

1 = Strongly Disagree 2 = Disagree
3 = No Opinion - Not Applicable 4 = Agree 5 = Strongly Agree

17. I value and support the use of microcomputer technology in the school district.

Response	Freq	Percent	Cum Freq	Cum Pct
1	0	0.00	0	0.00
2	1	16.67	1	16.67
3	0	0.00	1	16.67
4	0	0.00	1	16.67
5	5	83.33	6	100.00
N =	6	Total cases =	6	

Response	Freq	....10...20...30...40...50...60...70...80...90....
1	0	
2	1	*********
3	0	
4	0	
5	5	**********

Mean = 4.50 Standard Deviation = 1.22 No Responses = 0

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18. The school district's computer programs prepares the student for a future in a technological society.

Response	Freq	Percent	Cum Freq	Cum Pct
1	1	16.67	1	16.67
2	0	0.00	1	16.67
3	0	0.00	1	16.67
4	3	50.00	4	66.67
5	2	33.33	6	100.00
N =	6	Total cases =	6	

Response	Freq	....10...20...30...40...50...60...70...80...90....
1	1	*********
2	0	
3	0	
4	3	**********
5	2	**********

Mean = 3.83 Standard Deviation = 1.47 No Responses = 0

Beverly Hills Unified School District Board Technology Survey

1 = Strongly Disagree 2 = Disagree
3 = No Opinion - Not Applicable 4 = Agree 5 = Strongly Agree

19. I feel the elementary school labs are important to our school district's computer programs.

Response	Freq	Percent	Cum Freq	Cum Pct
1	0	0.00	0	0.00
2	0	0.00	0	0.00
3	1	16.67	1	16.67
4	2	33.33	3	50.00
5	3	50.00	6	100.00
N =	6	Total cases =	6	

Response	Freq	....10...20...30...40...50...60...70...80...90....
1	0	
2	0	
3	1	*********
4	2	**********
5	3	**********

Mean = 4.33 Standard Deviation = 0.82 No Responses = 0

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20. It is valuable to have a computer resource teacher at each site.

Response	Freq	Percent	Cum Freq	Cum Pct
1	0	0.00	0	0.00
2	1	16.67	1	16.67
3	1	16.67	2	33.33
4	2	33.33	4	66.67
5	2	33.33	6	100.00
N =	6	Total cases =	6	

Response	Freq	....10...20...30...40...50...60...70...80...90....
1	0	
2	1	*********
3	1	*********
4	2	**********
5	2	**********

Mean = 3.83 Standard Deviation = 1.17 No Responses = 0